DISSERTATION ON

A STUDY OF MATERNAL AND FETAL OUTCOME IN PREGNANCY BEYOND 40 WEEKS OF GESTATION

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BONAFIDE CERTIFICATE

This is to certify that this dissertation titled "**A STUDY OF MATERNAL AND FETAL OUTCOME IN PREGNANCY BEYOND 40 WEEKS OF GESTATION "** is the original work done by **Dr. P. Kodeeswari,** in the Institute of Obstetrics and Gynaecology, Government Maternity Hospital for Women and Children, Chennai, attached to Madras Medical College in partial fulfillment of the university rules and regulations for the award of MD Degree (Branch II, Obstetrics and Gynaecology) under my guidance and over all supervision during the academic period from 2005 to 2008.

Prof. Dr. T.P.KALANITI M.D
Dean**,**
Madras Medical College and
Govt. General Hospital
Chennai - 600 003

Prof.Dr.K.SARASWATHI M.D., D.G.O.,
Director and Superintendent,
Institute of Obstetrics and Gynaecology.
Madras Medical College,
Chennai - 600 008

DECLARATION

I hereby declare that the dissertation titled **"A STUDY OF MATERNAL AND FETAL OUTCOME IN PREGNANCY BEYOND 40 WEEKS OF GESTATION "** Was prepared by me under the guidance of Prof. K. Saraswathi M.D., D.G.O., Director and Superintendent, Institute of Obstetrics and Gynaecology, Madras medical college, Chennai.

This dissertation is submitted to Dr. MGR Medical University in partial fulfillment of the university regulations for the award of MD Degree in Obstetrics and Gynaecology. This dissertation has not been submitted previously to any University by me for the award of any degree or diploma.

Chennai
Date **Dr. P. Kodeeswari**

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CONTENTS

INTRODUCTION

Pregnancy and childbirth are two of the events in the life of a woman that is eagerly and anxiously expected. Women worry when they have not delivered by the expected date of confinement. The anxiety increases even among obstetricians, when women don't deliver by 41 weeks of gestation, since the fetal morbidity and mortality increases thereafter.

To the practicing obstetrician, the problem of prolonged pregnancy constantly recurs. How far is it a clinical entity in its own right? How much does it matter? How can one be sure that the case is post term? What are the risks and what steps should be taken to counter them?

Management of pregnancy that progresses to one or more weeks past EDD is an important unresolved challenge in obstetrics. Therefore the obstetrician is faced with a decision, which requires balancing the relative risks associated with expectant management versus delivery.

The protocol for management of pregnancies that goes beyond EDD vary in different parts of India, regarding the ideal period of antepartum fetal surveillance and induction of labour.

In this study we compare the outcome of pregnancies those intervened at 40 to 40 weeks and 6 days of gestation and those intervened at 41 to 41 weeks and 6 days of gestation and to arrive at an optimum period for intervention in these cases.

Both the mother and the fetus are at increased risk of adverse events when the pregnancy continues beyond the EDD. Potential maternal risks, besides the obvious emotional trauma accompanying an unexpected fetal death or serious complication, include potential increased risk of injury to the pelvic floor associated with difficult deliveries of macrosomic infants, increased risk for cesarean section due to increased incidence of fetal distress and failed induction.

Fetus is at increased risk for post maturity and other adverse outcomes associated with uteroplacental insufficiency include meconium aspiration, growth restriction and intrapartum asphyxia. In other cases, continued growth of the fetus leads to macrosomia, increasing the risk of labour abnormalities, shoulder dystocia and brachial plexus injuries.

Reports by **Clifford et al (1988) and Dyson (1988)** indicate that the problems of post maturity may set in earlier in certain ethnic groups. Hence management of these patients based on statistics and studies from the west may not be applicable in our population.

In this study, the outcome of pregnancies that crossed the EDD, have been studied in Institute of Obstetrics and Gynecology, MMC, Chennai – 8.

REVIEW OF LITERATURE

The standard internationally recommended definition of prolonged pregnancy endorsed by ACOG (1997) is 42 completed (294 days) of gestation or more from the first day of last menstrual period. This is also the given definition of prolonged pregnancy by the international Federation of obstetrics and Gynecology (FIGO).

The definition of post term pregnancy as one that persists for 42 weeks or more from the last menstrual period assumes that the last menses was followed by ovulation 2 weeks later. 2 Categories of pregnancies that reach 42 completed weeks.

They are: -

1. Those truly 42 weeks beyond conception

2. Those with less advanced gestation due to variation in timing of ovulation.

Munster and associates (1992) described a high incidence of large variations in menstrual cycles in normal women. **Boyce and associates (1976)** studied that in women with conceptional BBT profiles, 70% of them who completed 42 postmenstrual weeks had less advanced gestation based on their ovulation dates.

Incidence:

The Incidence of post term pregnancies varies between 4-14% depending on the criteria used for diagnosis, with an average of about 10%. **Boyd et al** found an incidence of post term pregnancy 7.5%, when diagnosis was based on Last menstrual period, and an incidence of 2.6%, when diagnosis was based on USG & Menstrual History.

Stricter the dating criteria used in confirming ones due date, the lower is the probability that a post dated pregnancy will be encountered. Regardless of the criteria used, post dated pregnancies are associated with a significant increase in perinatal mortality and morbidity.

Methods of Calculating Expected Date of Delivery:

The accepted defined length of human gestation is 280 days from the last normal menstrual period in a 28 days cycle, or given that ovulation occurs approximately 14 days prior to menstruation, then 266 days from ovulation. Methods which arrive at the estimated due date (EDD) include:

1. Counting 40 calendar weeks from LMP

2. Using the time honoured standard Naegele's rule, which takes LMP and then adds 7 days plus 9 months.

3. 38 calendar weeks from known ovulation / conception date.

If these dates are unavailable, other methods of calculating the EDD include

1. Ultrasound dating in 1st trimester, or early 2nd trimester. GA in the first trimester can be determined by measuring the crown-rump length, which is accurate to within 3-5 days.

Contributing Factors:

1. Delayed Ovulation:

Even if the mother is sure of her last menstrual period, there could still be a delayed ovulation, which can occur in few cycles in normally menstruating women. This is particularly increased in the situations like breast feeding, coming off of birth control pills, miscarriage of an immediately previous pregnancy.

2. Previous obstetric History: -

The tendency for some mothers to have repeated post term birth suggests that some prolonged pregnancies are biologically determined. In an analysis of 27,677 births to Norwegian women, the incidence of a subsequent post term birth increased from 10 to 27% if the first birth was post term. This was increased to 39% if there had been two previous successive post term deliveries **(Bakketeig and Bergsjϕ, 1991).**

3. Family History:-

Morgen and Colleagues (1999) reported that prolonged pregnancy also recurred across generations in Swedish women. When mother and daughter had a prolonged pregnancy, the risk for a daughter's subsequent post term pregnancy was increased two to three fold. **Laursen associates (2004)** found that maternal but not paternal genes influenced prolonged pregnancy.

4. Fetal-Placental Factors:-

Anencephaly, Adrenal Hypoplasia and X linked recessive chromosomal disorder (placental sulfatase deficiency) can predispose to post term pregnancy. **(Mac Donald and Silteri, 1965; Naeye 1978; Rabe and Colleagues, 1983).** These cause a lack of the usually high estrogen levels of normal pregnancy.

5. Contradictory results have been found concerning the significance of a variety of maternal demographic factors such as parity, socioeconomic class and age.
6. Finally, reduced cervical nitric oxide release may be a factor (**Vaisanen – Tommista and Co-workers, 2004).**

Characteristics of Post Dated Pregnancies:-

1. Amniotic Fluid Changes: -

Amniotic fluid has the following changes in the volume at their particular age of gestation. The amount increases rapidly with the growth of the products of conception averaging about 50ml at 12weeks of gestation, 200ml at 16weeks. At 20 weeks its volume is about 400ml and at 35 weeks it reaches a peak of nearly a litre. During the last few weeks its volume decreases and at 40 weeks it is around 800ml and at 42 weeks – 480 ml, 43weeks – 250ml and at 44weeks – 160ml.

Ageing of the placenta (placental senescence) causes chronic uteroplacental insufficiency resulting in oligohydramnios, which in turn may lead on to fetal hypoxemia.

Oligohydramnios is defined as the Amniotic fluid index of 5cm or less by sonar or a single deepest vertical pool $\leq$2cm excluding the loop of cord. The major determinant of Amnioticfluid in a mature fetus is being the fetal urine production and fetal swallowing.

Levono and associates (1984) reported that both antepartum fetal jeopardy and intrapartum fetal distress were the consequences of cord compression associated with oligohydramnios.

Trimmer and Co-workers (1990) measured hourly fetal urine production using sequential ultrasonic bladder volume measurements. In

his study diminished urine production was found to be associated with oligohydramnios.

OZ and Co-workers (2002) using Doppler waveforms reported that fetal renal blood flow is reduced in post term pregnancies with oligohydramnios. **Vielle et al** used pulsed doppler waveforms and reported the same.

The qualitative changes in the Amniotic fluid are: -

1. The fluid becomes milky and cloudy because of the flakes of veenix caseosa.

2. The colour of the fluid becomes green as the fetus passes meconium and it is likely that meconium release in to an already reduced amniotic fluid volume causes thick, viscous meconium implicated in meconium aspiration syndrome.

3. The phospholipids composition will change because of the presence of large number of lamellar bodies released from fetal lungs and L: S ratio becomes 4:1.

O' Driscoll has classified (Graded) the meconium staining in Amniotic Fluid in to

Grade I:

Lightly meconium stained, which will be transparent, when collected in a test tube.

Grade II:

Opaque & green coloured meconium in Amniotic fluid.

Grade III:

Meconium undiluted with Amniotic fluid.

Clement and Co-workers (1987) reported six post term pregnancies in which amniotic fluid volume diminished abruptly over 24hours and one fetus died.

2. Morphological and functional changes in the placenta: -

Smith and Barker (1999) reported that placental apoptosis – programmed cell death was significantly increased at 41-42 weeks compared with that of 36-39 weeks of gestation.

Jazayeri and Co-Workers (1998) investigated cord erythropoietin levels in pregnancies between 37-43 weeks. They found that cord erythropoietin levels were significantly increased in pregnancies reaching 41 weeks or more due to decreased fetal oxygenation.

Fibrinoid necrosis and Atherosclerosis of chorionic and decidual vessels can occur. There are also formation of hemorrhagic infarcts which are foci of deposition of calcium and formation of white infarcts which is seen in about 10-25% of term and 60-80% of post term placentae and they are mostly seen in the placental borders.

3. **Implications of Post maturity and possible problems associated with post maturity in the fetus.**

Post maturity syndrome is a term used originally to describe the post-term infant exhibiting physical signs of intrauterine malnutrition. It is not the norm nor is the exclusive characteristic of prolonged pregnancy. Now it is known that a baby with such features can present at an earlier gestational period also.

The post maturity syndrome complicates 20-43% of prolonged pregnancies **(Vorherr 1975; Homburg et al, 1979; Yeh and Read, 1982).** It is characterized by peeling of skin, loss of subcutaneous fat and muscle mass, and scanty thick meconium, longnails, shrunken appearance giving an ‘old man’ look.

There are three clinical stages according to **Clifford (1954).**

1. Stage - I

Changes of Skin i.e., wrinkled and peeling but not meconium stained.

2. Stage - II

All findings of stage I with meconium stained Amniotic fluid and signs of fetal distress. The meconium staining affected the fetal skin, placental membranes and umbilical cord.

3. Stage - III

The infant and the placenta are typically stained yellow because meconium had been passed for several days earlier and the bile base had broken down. These signs are related to advanced placental dysfunction.

The incidence of these clinical findings varies with due date. The closer to the EDD one delivers, the greater the likelihood, that the fetus will have Stage I findings. perinatal mortality and morbidity increase from Stage I to Stage III.

4. Other causes of Perinatal Morbidity and Mortality:-

a. **Meconium Aspiration Syndrome (MAS):-**

Meconium in postdated pregnancy is dangerous, as it contains particulate matter like lanugo cells, hair etc, which can cause chemical pneumonitis on the Neonate, leading on to Hypoxemia and pulmonary Hypertension. meconium aspiration either before or after birth may result in severe pneumonia **(Eden et al 1987; usher et al 1988).**

Incidence of meconium staining of the amniotic fluid at 40 weeks is 30% and at 42weeks is 50%. Meconium is thick in consistency in approximately 50% of the time when it is present in prolonged pregnancy **(Usher et al, 1988).** The presence of meconium in the amniotic fluid warrants continuous fetal monitoring.

b. Fetal Distress:

Antepartum and Intrapartum variation in fetal heart rate due to cord compression because of oligohydramnios and also due to MSAF.

The decline in amniotic fluid volume has an impact on fetal movement in the potentially compromised fetus **(Ahn et al, 1987).** Decreased fetal movement should not be disregarded because the decline in fetal activity may be the sole manifestation of reduced amniotic fluid volume **(Phelan 1989).**

Fetal heart rate (FHR) Patterns are also affected by the changes in amniotic fluid volume, decelerations occur more often when amniotic fluid volume is decreased **(Gabbe et al, 1976).** Electronic fetal monitoring shows: -

1. Fetal bradycardia with loss of beat to beat variability.
2. Variable deceleration with slow recovery
3. Repetitive late deceleration
4. Saltatory base line.

Anand Kumar et al (1993) reported that as amniotic fluid volume declined, there was an increased incidence of non-reactivity of fetal heart rate and FHR decelerations with the non stress test.

Silver and colleagues reported that decrease in umbilical cord diameter ultrasonically was indicative of intrapartum fetal distress, especially if associated with oligohydramnios.

c. Fetal Growth Restriction:-

Until recently, the clinical significance of fetal growth restriction in the otherwise uncomplicated pregnancy has received little attention.

Divon and co-authors (1998) and **Clausson and Co-Workers (1999)** analysed births of almost 700,000 women from 1991 to 1995 and they showed that stillbirths were more common among growth-restricted fetuses who were delivered at 42 weeks or beyond. Indeed, one third of the post term still births were growth restricted.

Alexander and Colleagues (2000) studies show that morbidity and mortality were significantly increased in growth – restricted infants.

d. Macrosomia:

The incidence of birth injury is higher in post-term pregnancies and it is related to a higher incidence (two-fold) of macrosomia (>4000 grams) compared with term infants **(Zwerdling, 1967; Lagrewand**

Freeman, 1986; Eden et al 1987). The incidence of macrosomia increases from 1.4% at 37 to 41 weeks to 2.2% at 42 weeks or more **(Martin and colleagues, 2002).**

These macrosomic fetuses are susceptible to subdural hematomas, Cephalhematoma, fractures and palsies **(Eden et al, 1987; usher et al, 1988).** Continued fetal growth although at a slower rate between 38-42 weeks raises the possibility that both maternal morbidity and fetal morbidity and mortality associated with macrosomia might be avoidable with timely labour induction.

Perinatal Mortality:

The Historical basis for the concept of an upper limit of human pregnancy duration was the observation that perinatal mortality increased after the expected due date was passed. This is best seen when perinatal mortality is analysed from times before wide spread interventions for pregnancies exceeding 42 weeks.

In two large Swedish studies, they found that after reaching a nadir at 39-40 weeks, perinatal mortality increased as pregnancy exceeds 41 weeks. **Lucas and Co-workers (1965)** compared perinatal outcomes of post term pregnancies with pregnancies delivered between 38 and 41 weeks. They found that all components of perinatal mortality-antepartum, intrapartum, and neonatal deaths-were increased at 42

weeks and beyond and the most significant increases occurred intrapartum. Similar outcomes were reported by **Olesen and Colleagues (2003)** in their analysis.

Alexander and Colleagues (2000) reviewed 56, 317 consecutive singleton pregnancies delivered at 40 or more weeks between 1988 and 1998 at parkland hospital. They have shown that more infants were admitted to intensive care in post term pregnancies and the incidence of neonatal seizures and deaths doubled at 42 weeks. **Caughey and Musci (2004)** also have reported similar outcomes in their study.

Antepartum Evaluation:-

Reliability of Gestational Age Estimation:

The reliability of EDD is excellent if the following conditions are met:-

1. The patient had 3 or more regular periods before the last one and the last period was normal in duration and amount of flow.

2. No recent use of oral contraceptive pills (before 3 months).

3. The EDD calculated from the menstrual history was confirmed by an USG examination performed between 12 and 20 weeks of gestation.

Other situations that allow classification of the patient's dates are excellent are:-

1. The pregnancy was achieved during infertility treatment following administration of clomiphene, menotropin, or HCG and the date of conception is known.

2. The EDD was established by means of an ultrasound estimation of the crown-rump length between 7-11 weeks of gestation.

3. The EDD was established by means of 2 or more ultrasound examinations, 3 or 4 weeks apart, obtained between 12 and 28 weeks of gestation.

ACOG (2002) has established guidelines for assessing gestational age of 39 weeks and above and fetal maturity.

Gestational age of 39 weeks and fetal maturity may be assumed if one of the following criteria is met:

1. Fetal heart sounds have been documented for 20 weeks by non electronic fetoscope or for 30 weeks by Doppler ultrasound.

2. It has been 36 weeks since a positive serum or urine HCG pregnancy test was performed by a reliable laboratory.

3. An ultrasound measurement of crown-lump length, obtained at 6-11 weeks, support current gestational age of 39 weeks or more.

4. Clinical History and physical and ultra sound examination performed at 12-20 weeks support current gestational age of 39 weeks or more.

Good Dates:

1. Patients with adequate clinical information (as defined above) and one confirming ultrasound examination obtained after 24 weeks of gestation.

2. Patients with inadequate or incomplete clinical information and two or more ultrasound examinations showing adequate growth and similar EDD.

Poor Dates:

Any clinical situation different from those listed above.

In our study patients with excellent dates and good dates are alone included.

Role of Ultrasound:

This is done to determine the amniotic fluid volume, fetal size, fetal malformations (if USG not done at 18-20 weeks of gestation to rule out congenital anomalies), Biophysical profile and placental grading.

The four quadrant technique consists of measuring the vertical diameter of the largest pocket of amniotic fluid found in each of the four quadrants of the uterus. The sum of the results is the Amniotic fluid index (AFI) **Phelan et al (1987).**

An AFI less than 5 cm indicates oligohydramnios or a single vertical pocket $\leq$ to 2 indicates oligohydramnios. Pocket consisting primarily of umbilical cord are disregarded.

As stated earlier, early dating ultrasound reduces the incidence of prolonged pregnancy from 10% to 2%. **Gardosi and Geirrson** argue routine early trimester dating ultrasound is the method of choice in dating all pregnancies.

35% of all patients at term have a grade III placenta. Poor outcomes are more frequent in patients with advanced degrees of placental maturity than in patients of the same gestational with less mature placentas.

Antepartum Fetal Surveillance:

The role of antepartum fetal surveillance is to identify the onset of uteroplacental insufficiency and the development of fetal Hypoxia. The testing process must be cost effective, acceptable to the patient and reliable for the identification of the fetus who might benefit from delivery while minimizing unnecessary intervention. Unfortunately it is not always possible to predict the fetus that will become distressed in early labour with the currently used methods of fetal surveillance **(Eden, 1989).**

There are several studies **(Grannum PA et al 1979; Bochner CF et al, 1988; Guidetti DA & Divon 1989)** indicating that fetal danger is present before 42 weeks. So it is clear that Antepartum fetal surveillance should be started at 40 weeks of gestation in uncomplicated low risk pregnancies and continue as long as the patient remains undelivered.

Modified Biophysical profile (NST and Amniotic fluid Index) is performed for each patient. Biweekly NST and Amniotic fluid index 2-3 times per week has to be performed.

1. NST:-

A reactive NST consists of two FHR acceleration $\geq$15 beats above the base line lasting for more than or equal to 15 seconds, in a 20 minute

period, normal base line variability (≥5 beats per minute) and no decelerations.

Non-reactive NST is the one in which the base line variability in FHR is absent or minimal (≤5 beats / min), presence of deceleration, Bradycardia (FHR <120 / minute).

Other methods being the Biophysical profile, contraction stress test and Doppler study, and subjective way of assessment is daily fetal movement count or the fetal kick count.

2. Biophysical Profile:-

Component	Score 2	Score 0
1. Non stress test	≥2 accelerations of ≥15 beats / minute for ≥15 seconds in 20 minutes.	0 or 1 acceleration in 20-40 minutes.
2. Fetal breathing	≥1 episode of rhythmic breathing in a 30 minute period, i.e. 30 second of sustained breathing movement during a 30 minutes observation period	<30 sec of sustained breathing movement in 30 minutes.
3. Fetal Movement	Three or more gross body movement in a 30 min period	≤2 movement in 30 minutes.

Component	Score 2	Score 0
4. Fetal tone	≥1 episode of extension of a fetal extremity and return or to flex and extend the hand	No movement no flexion or extension.
5. Amniotic fluid volume	Single vertical pocket ≥2cm	Single vertical pocket < 2cm.

Normal Score: 8-10 = Normal PH of the fetus (this value must include normal AFI).

Equivocal – 6 = Poor predictor of fetal outcome.

2-4/0 = Accurate predictor of abnormal outcome.

3. Contraction Stress Test:-

This is used infrequently because of the long duration of the test, the requirement of a continuous supervision by trained personnel and the existence of risks and contraindications associated with its performance.

a, Negative CST – Long term variability is absent, short term variability is decreased, but there are no decelerations associated with the uterine contractions.

b. Positive CST – Long and Short-term variability are decreased and every uterine contraction is followed by a deceleration of the fetal heart rate.

4. Doppler:

Umbilical artery Doppler velocimetry may be of benefit only in pregnancies complicated by intrauterine growth restriction; middle cerebral artery Doppler velocimetry still is investigational **(Int.J.Gynaecol obstet. 2000; 68:175-185).**

5. Daily Fetal Movement Count:

By means of 'Cardiff count of 10' formula. 2 randomised trials tested the value of fetal kick chart in the management protocol and they have proven that routine formal fetal movement does not reduce the incidence of intrauterine fetal demise in late pregnancy.

Evidence of benefit from antenatal surveillance is lacking (ACOG 2000). Normal antenatal monitoring results usually are reassuring; for the outcome of stillbirth, a reactive NST has a negative predictive value of 99.8% and a modified Biophysical profile or full biophysical profile has a negative predictive value greater than 99.9%.

MANAGEMENT OF LOW-RISK PREGNANCY BEYOND 40 WEEKS GESTATION.

Pelvic Examination: -

Ripeness of cervix is important in the management of these cases. Vaginal Examination has to be done to assess the pelvis, to evaluate the cervix and to rule out cephalopelvic disproportion.

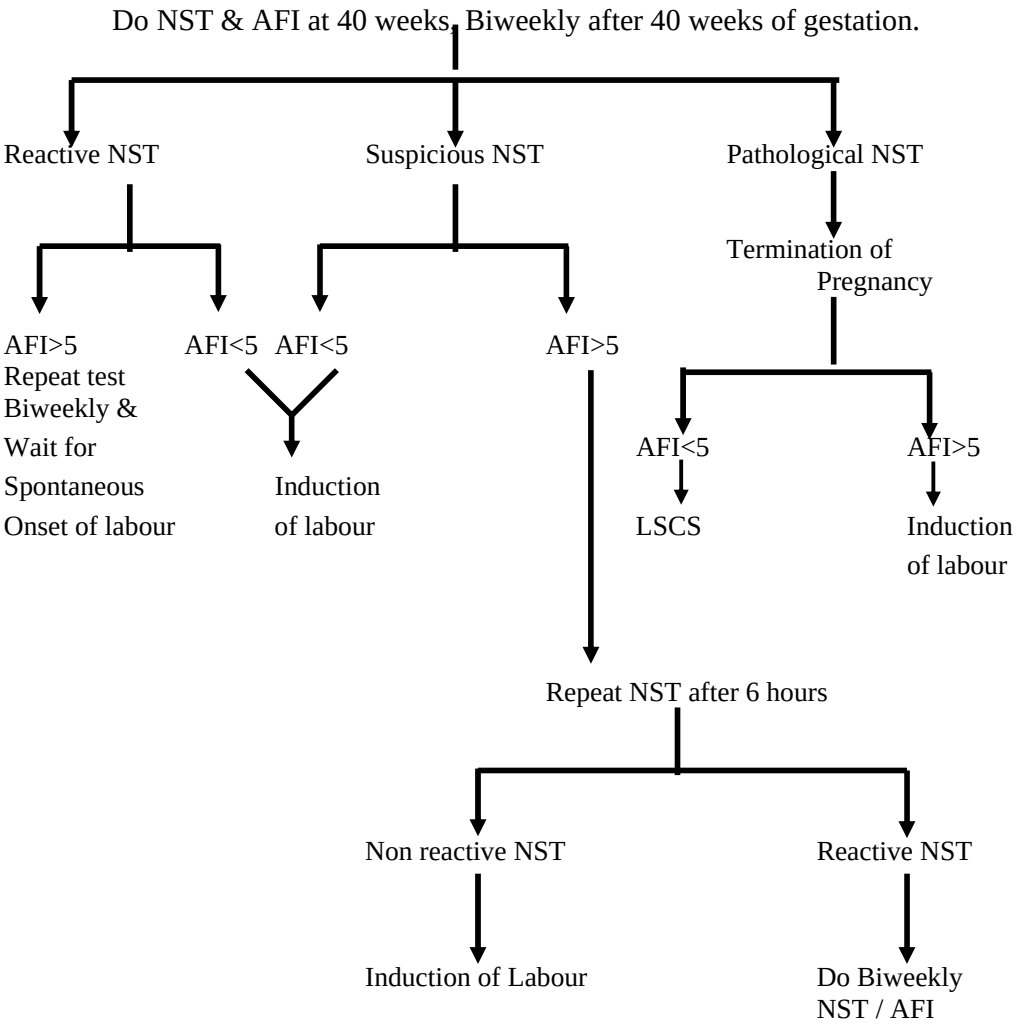
Bishop Score: -

Factor	0	1	2	3
Cervical Consistency	Firm	Medium	Soft	
Cervical Position	Posterior	Mid	Anterior	
Cervical dilatation (cms)	Closed	1-2cm	3-4cm	5cm & above
Cervical effacement	0-30%	40-50%	60-70%	80% & above
Station of the fetal head	-3	-2	-1,0	+1,+2

Score of less than 5 is considered unfavourable and 5 & above is considered favourable for induction of labour.

PROTOCOL FOR MANAGEMENT OF PREGNANCY BEYOND 40 WEEKS.

Confirm Gestational age.

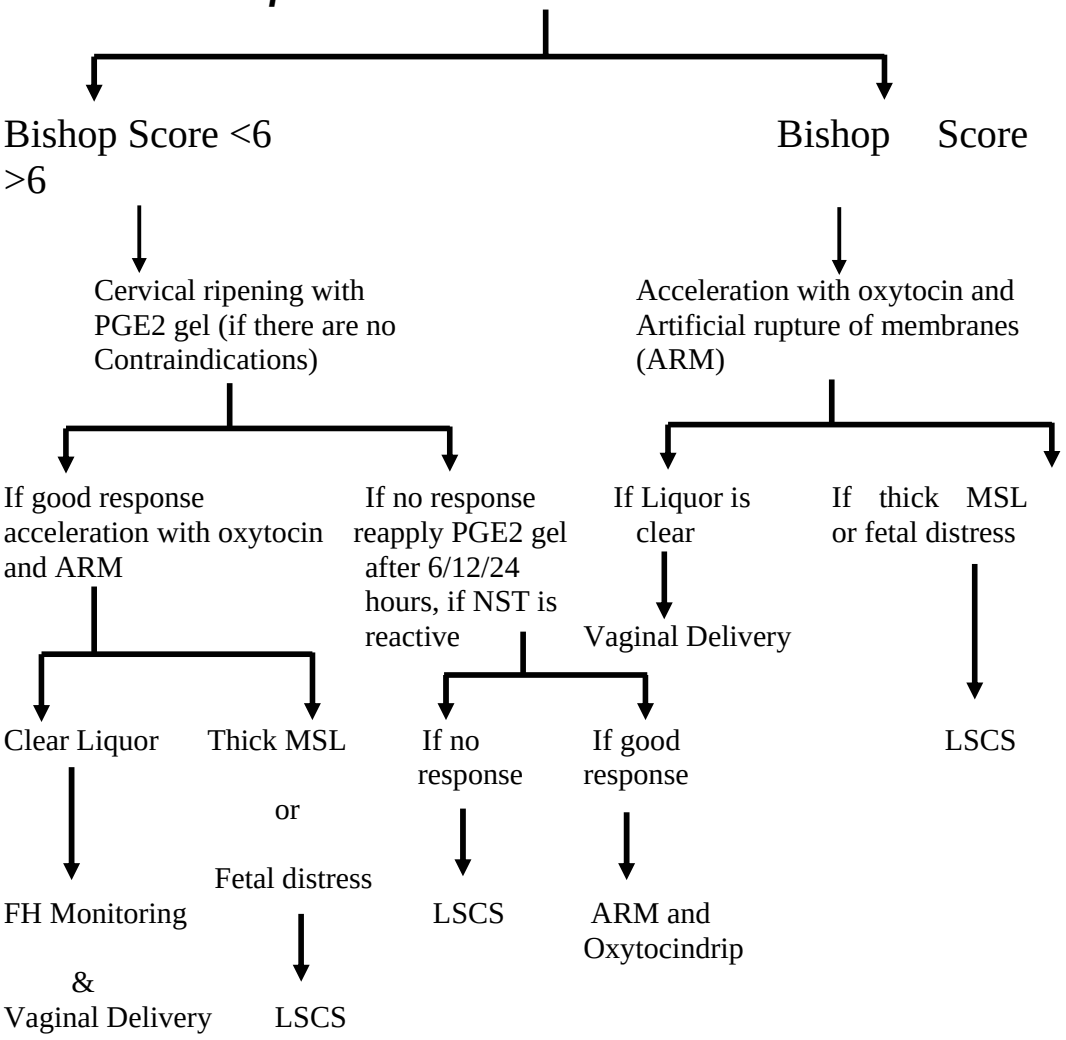


INDUCTION OF LABOUR:

Defined as the stimulation of regular uterine contractions before the spontaneous onset of labour using mechanical or pharmacological methods in order to generate progressive cervical dilation and subsequent delivery.

It is indicated when the benefits of delivery to the mother or fetus outweigh the potential risks of continuing the pregnancy.

For Induction of Labour



Pre induction status of the cervix is assessed by bishop score and if cervix is unfavourable pre induction cervical ripening is done.

Cervical ripening is the process that culminates in the softening and distensibility of the cervix, thus facilitating delivery. There is an inverse relationship between the bishop score and the failure of induction, with low scores being associated with a high rate of failed induction.

The principal role of these agents is to soften the unripe cervix independently of uterine activity. Unfortunately, it has proved difficult to separate methods of cervical ripening and labour induction. Patients with unripe cervix may undergo cervical ripening without initiating labour contractions when a pharmacological agent such as PGE2 gel (Dinoprostone) is employed, but sometimes contractions ensure before the cervix has ripened.

CERVICAL RIPENING METHODS:

1. Mechanical Methods:

a. Foley's catheter with balloon inflated with 30ml of saline **(Lewis 1983)** causes ripening by direct pressure and stretching of lower

uterine segment and there by causing local release of prostaglandins.

b. Laminaria Tents

c. Hygroscopic dilators

d. Membrane Stripping:

Otherwise known as “Membrane sweep” is a simple technique, in which a finger is inserted through the cervix and ‘swept’ around the lower segment above the Os in a circular motion. It appears to work by release of prostaglandin(especially prostaglandin F2α).

A recent systematic review showed no evidence of increase in the risk of maternal or perinatal infection when ‘Sweeping’ is used.

The cochrane library review of sweeping of membranes for inducing labour included fourteen trials and assessed the effects of membrane sweeping on maternal and perinatal outcome **(Bouvain and Irion 2000).** Sweeping of membranes performed on low risk women at term was associated with a decreased risk of pregnancy continuing beyond 41 or 42 weeks (RR 0.42), although it did not seem to produce clinically important benefits.

2. Pharmacological Methods:

a. Prostaglandin E2:-

Local application of prostaglandin E2 (dinoprostone) is commonly used for cervical ripening (ACOG, 1999). **Owen and colleagues (1991)** did a meta analysis of 18 studies and they found that PGE2 improves Bishop scores and induction – to- delivery times when compared with those of untreated controls.

For intracervical application of PGE2 gel, 0.5mg of PGE2 in a prefilled syringe (with a catheter for endocervical application) is used.

A 10mg Dinoprostone vaginal insert (Cervidil) also is approved for cervical ripening. The insert provides slower release of medication (0.3mg/hours) than the gel. **Bolnick and associates, 2004 Rayburn and Colleagues, 1992)** found that as with PGE2 gel, these inserts will shorten the induction – to delivery interval. An advantage of the insert is that it can be removed should hyper stimulation occur.

B. Prostaglandin E1:-

Misoprostol is a synthetic prostaglandin E1, A 25 μg intravaginal dose was found comparable to dinoprostone **(Van Gemund and associates, 2004)**. There is also an increased cesarean delivery rate due to uterine hyperstimulation when compared with that from dinoprostone **(Buser and Collaborators, 1997).**

Wing and Colleagues (2003) and **Hall and Associates (2002)** reported that a 100μg dose orally was as effective as the 25μg

intravaginal dose. A 50μg misoprostol intra vaginal dose was associated with significantly increased tachysystole, meconium passage and meconium aspiration when compared with PGE2 gel **(Wing and Co Workers, 1995).**

C. Mifepristone (RU 486)

200mg oral for 2 days, 48hrs before induction.

d. Oxytocin

Starting dose of 1-4 mIU / min and gradually increase till effective contractions are established.

e. Relaxin

1-4 μg purified porcine gel applied vaginally / intracervically.

INDUCTION OF LABOUR VERSUS FETAL TESTING:

A cochrane review **(Crowley. P, Cochrane Data base 2004; (3)** of 19 randomised control trials found that routine labour induction at 41 weeks gestation resulted in lower perinatal mortality rates but similar cesarean delivery rates. Approximately 500 women needed to be induced to prevent one perinatal death. This review also found that routine USG in early pregnancy – even in low risk women – reduced the number of patients who required labour induction for apparent post term pregnancies.

In a more recent meta analysis by **Sanchez-Ramos (2003),** analyzed 16 RCTS Comparing induction at 41 wks Vs expectant management, the induction group had lower cesarean delivery rates (OR, 0.88; 95% CI (0.78-0.99); number needed to induce, 53). A non significant reduction in perinatal mortality rates also was found in the induction group (OR, 0.41;95% CI (0.14 to 01.18). No significant difference was found in NICU admissions, meconium aspiration, meconium below volal cords or low Apgar scores.

The **Canadian multicenter post-term pregnancy Trial (CMPPT) (Hannah ME & Hannah J, Hewson S, in 1992)** is the largest individual RCT to date comparing labour induction at 41 weeks gestation with expectant management. They concluded that women in induced group at 41 weeks had a lower rate of cesarean delivery for fetal distress than those allocated to expectant management. No difference was found in perinatal mortality rates.

In neither review did an “unfavourable” cervix at the time of induction results in increased rate of cesarean delivery or other adverse outcomes.

The society of obstetrics and gynaecologists of Canada (SOGC) issued guidelines in 1997 encouraging induction of labour at 41 weeks gestation **Roberts and Colleagues** in a study of 5,40,116 live births concluded that this meta analysis prompted induction after 41 weeks and it is widely adopted in Australia.

AIM OF THE STUDY

1. To study the maternal outcome in pregnancy beyond 40 weeks; by weeks of gestation.

2. To analyse the optimum period of intervention in pregnancies that advance beyond the expected date of confinement.

3. To study the perinatal morbidity and mortality in pregnancies that advance beyond the expected date of confinement.

MATERIALS AND METHODS

This study was conducted at Govt. Hospital for women and children, Institute of obstetrics and Gynecology, Egmore attached to Madras Medical College, from January 2006 to December 2006.

Study Design:-

Prospective Study.

Study Population:-

500 pregnant women with pregnancy beyond 40 weeks of gestation were recruited based on the inclusion criteria.

Inclusion Criteria:-

1. Women with accurate recall of last menstrual period with at least 3 regular periods before last menstrual period.

2. Had taken no oral contraceptive pills for at least 3 months prior to last menstrual period.

3. Single fetus in cephalic presentation with normal fetal anatomy.

4. Gestational age >40 weeks as per LMP.

5. Age of the mother being 15-40 years

6. Those women with pregnancy beyond 40 weeks of gestation, who met the above mentioned criteria who got admitted in labour (booked else where) were also included in the study.

Exclusion Criteria:-

1. Multiple pregnancies

2. Non cephalic presentation of the fetus

3. Congenital anomalies of the fetus

4. Post cesarean pregnancy

5. Prelabour rupture of membranes

6. Pregnancies complicated by placenta previa and abruptio placenta.

7. Rh – Negative complicating pregnancy.

8. Medical disorders complicating pregnancy like diabetes, cardiac disease, renal disease chronic Hypertension and pregnancy complications like preeclampsia and Gestational Diabetes mellitus.

9. Preferred cesarean delivery

10. Patients with poor dates (last menstrual period).

From the pregnant mothers attending the antenatal clinic, all patients (40 weeks of gestation and beyond) were admitted. A detailed history was taken and the proforma was filled.

Gestational age was assigned based on the mother's statement of first date of last menstrual period. General examination was done followed by obstetrical examination was done. Fetal presentation, maturity (Clinical feel of the head), Liquor adequacy were assessed. Fetal weight was estimated clinically and then vaginal examination to assess the cervical status by bishop score and assessment of the pelvis was done and cephalo pelvic disproportion was ruled out.

In patients who got in to spontaneous labour between 40 to 40 weeks and 6 days of gestation, 41 to 41 weeks and 6 days of gestation, 42 weeks and above partogram was put to monitor the progress of labour and active management of labour was done by ARM & Oxytocin (if needed). Amount & colour of liquor noted and if it was meconium stained amnioinfusion given using normal saline or ringers lactate at room temperature.

The mode of delivery was decided accordingly and the neonate was examined for the evidence of post maturity syndrome and other morbidities due to prolonged pregnancy.

In those patients (who did not get in to labour by their EDD) induction of labour was done. Policy of induction and non induction was the prerogative of individual obstetric unit.

One group of women had induction of labour at 40 weeks onwards by one group of consultants.

Other group of consultants have followed the policy of induction of labour at 41 weeks. Till then expectant management with antepartum fetal surveillance is done which consisted of biweekly non stress test and weekly twice to thrice amniotic fluid index.

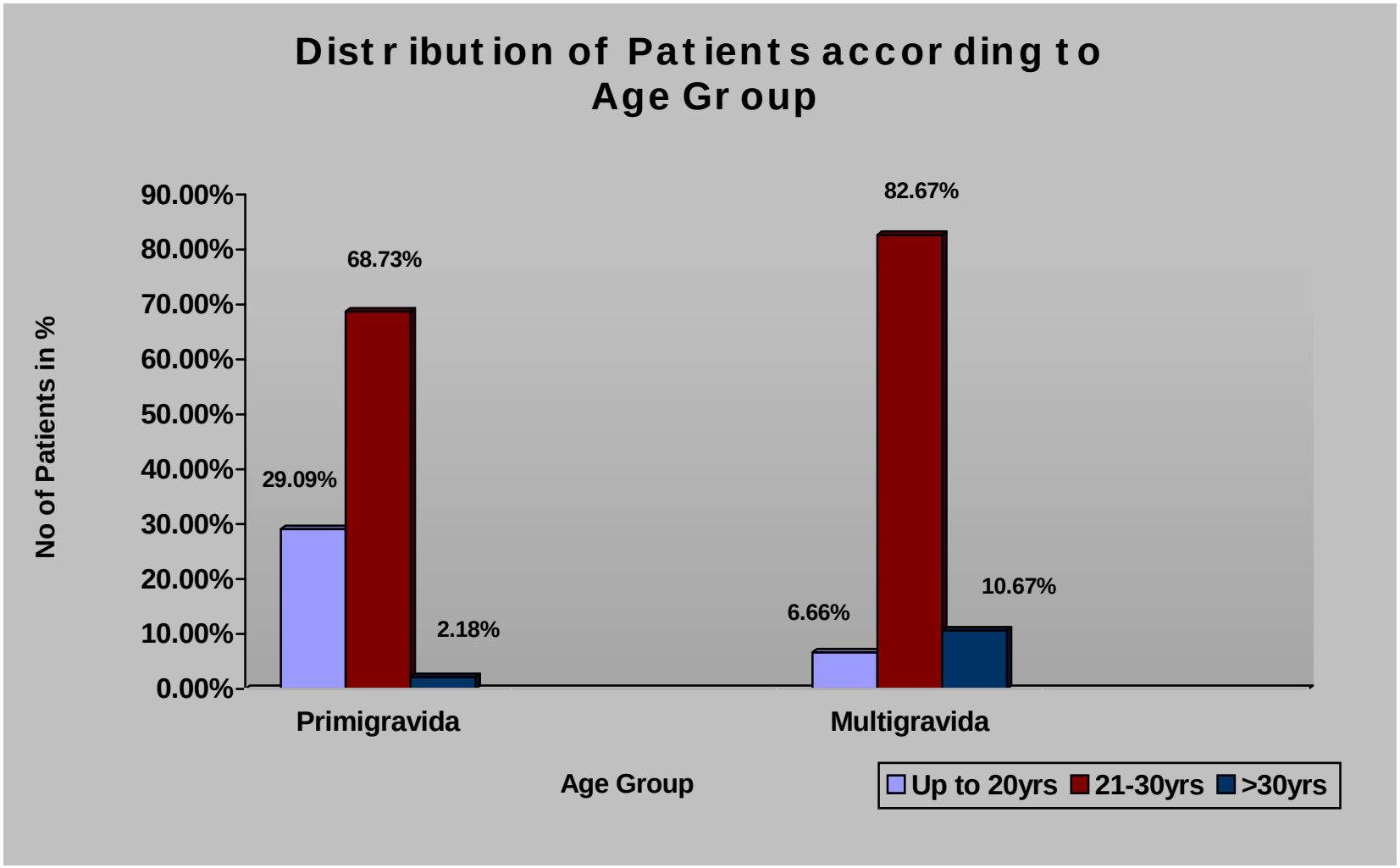
Intracervical PGE2 gel 0.5mg was used for induction. The policy of reapplication of PGE2 gel after 6 hours / 12hours / 24hours was based on the obstetric unit to which the patient belongs. Some consultants repeated the 2^{nd} does after 6 hours, while others after 12hours and 24 hours respectively.

Active management of labour done by amniotomy and labour acceleration with oxytocin if necessary. Colour of liquor noted and

amnioinfusion given if the liquor was meconium stained and the mode of delivery was decided accordingly.

Maternal outcome in the form of labour natural, instrumental vaginal delivery and cesarean section were evaluated in all these groups (spontaneous labour and induced labour group).

Perinatal outcome assessment was in the form of Birth weight, Apgar score <7 at 5 min, Respiratory distress, meconium aspiration syndrome, Intrauterine growth restriction / macrosomia, in all the groups. All the results were compared to arrive at an optimum period of intervention in the pregnancies that advance beyond 40 weeks of gestation.


Distribution of Patients according to Age Group
No of Patients in %
90.00%
80.00%
70.00%
60.00%
50.00%
40.00%
30.00%
20.00%
10.00%
0.00%
29.09%
68.73%
2.18%
6.66%
82.67%
10.67%
Primigravida
Multigravida
Age Group
Up to 20yrs
21-30yrs
>30yrs

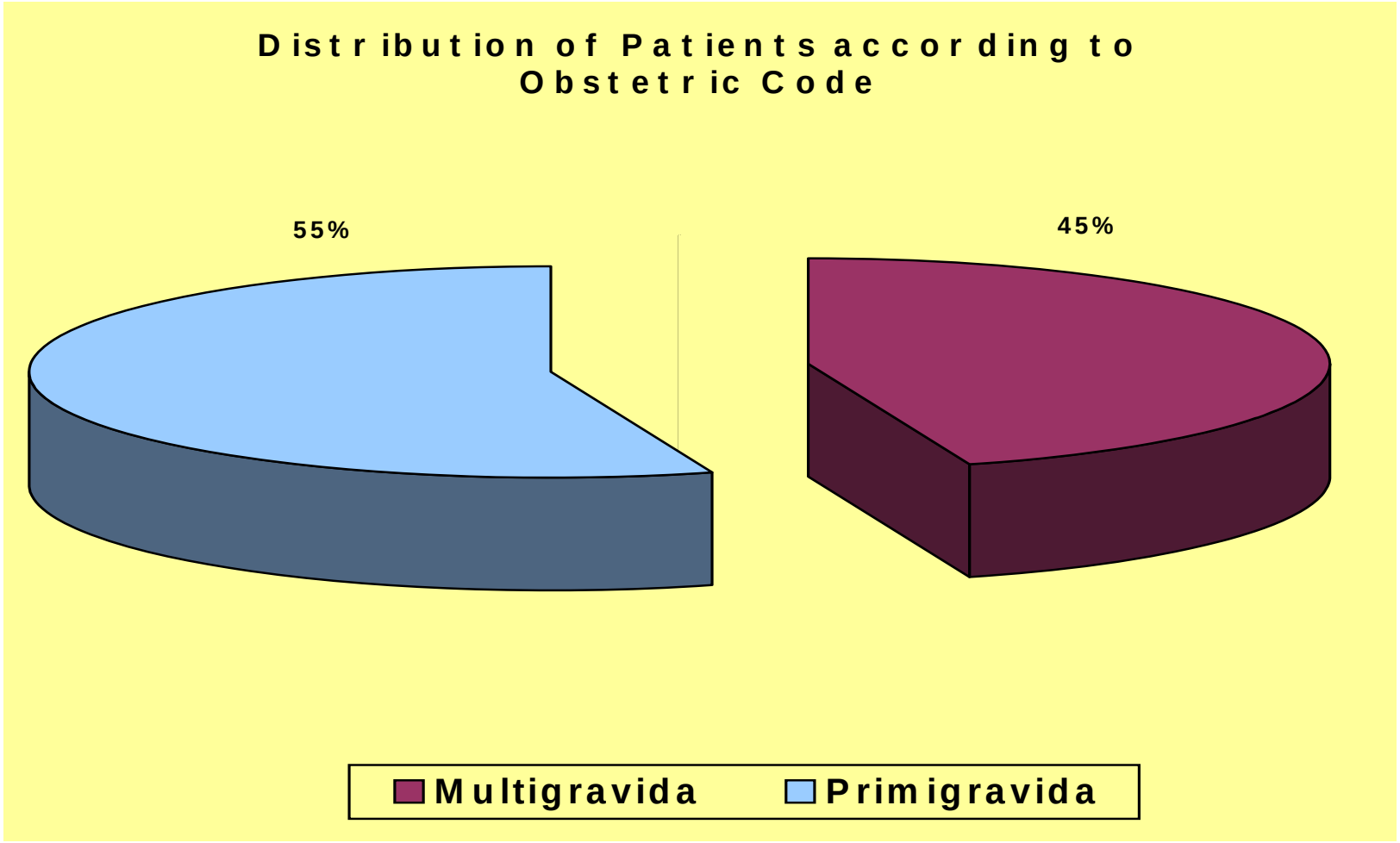
OBSERVATION

TABLE-1

DISTRIBUTION OF PATIENTS ACCORDING TO AGE GROUP

Patient Characteristics (Age)	Primigravida		Multigravida	
	No. of Patients	**%**	**No. of Patients**	**%**
Up to 20years	80	29.09%	15	6.66%
21-30 years	189	68.73%	186	82.67%
>30 years	6	2.18%	24	10.67%
Total	**275**		**225**	

Among the 500 antenatal patients 55% of them were primigravida and 45% of them were multigravida. Among them 68.73% of primigravida and 82.67% of multigravida are in the age group of 21-30 years.


Distribution of Patients according to Obstetric Code
55%
45%
Multigravida
Primigravida

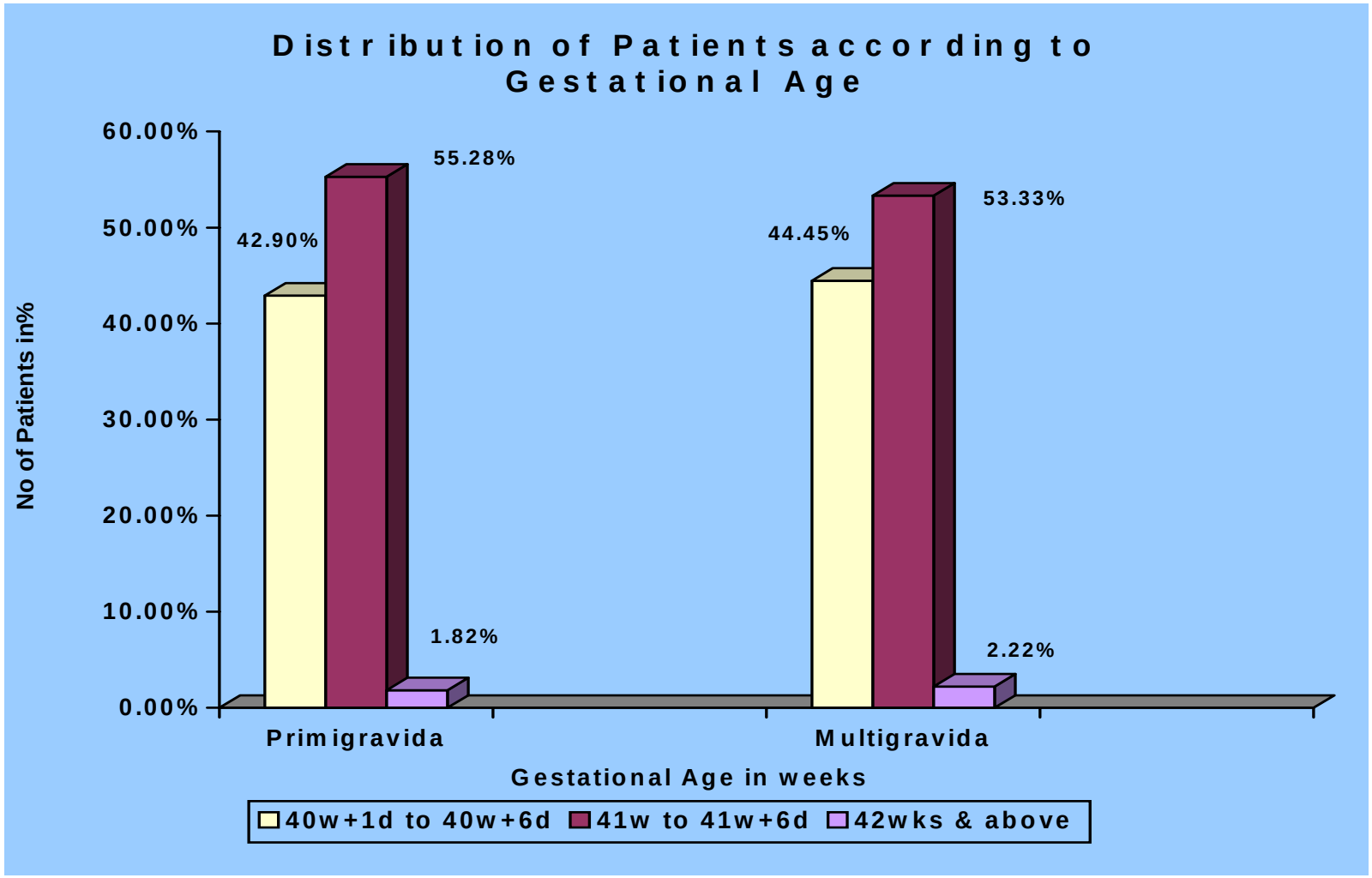

Distribution of Patients according to Gestational Age
60.00%
50.00%
40.00%
30.00%
20.00%
10.00%
0.00%
No of Patients in%
42.90%
55.28%
1.82%
44.45%
53.33%
2.22%
Primigravida
Multigravida
Gestational Age in weeks
40w+1d to 40w+6d
41w to 41w+6d
42wks & above

TABLE-2

DISTRIBUTION OF PATIENTS ACCORDING TO GESTATIONAL AGE

Gestational Age	Primigravida		Multigravida	
	No. of Patients	**%**	**No. of Patients**	**%**
40w+1d to 40w+6d	118	42.90%	100	44.45%
41w to 41w+6d	152	55.28%	120	53.33%
42 wks & above	5	1.82%	5	2.22%
Total	**275**		**225**	

55.28% of Primigravida and 53.33% of multigravida are in the gestational age of 41 weeks to 41 weeks and 6 days.

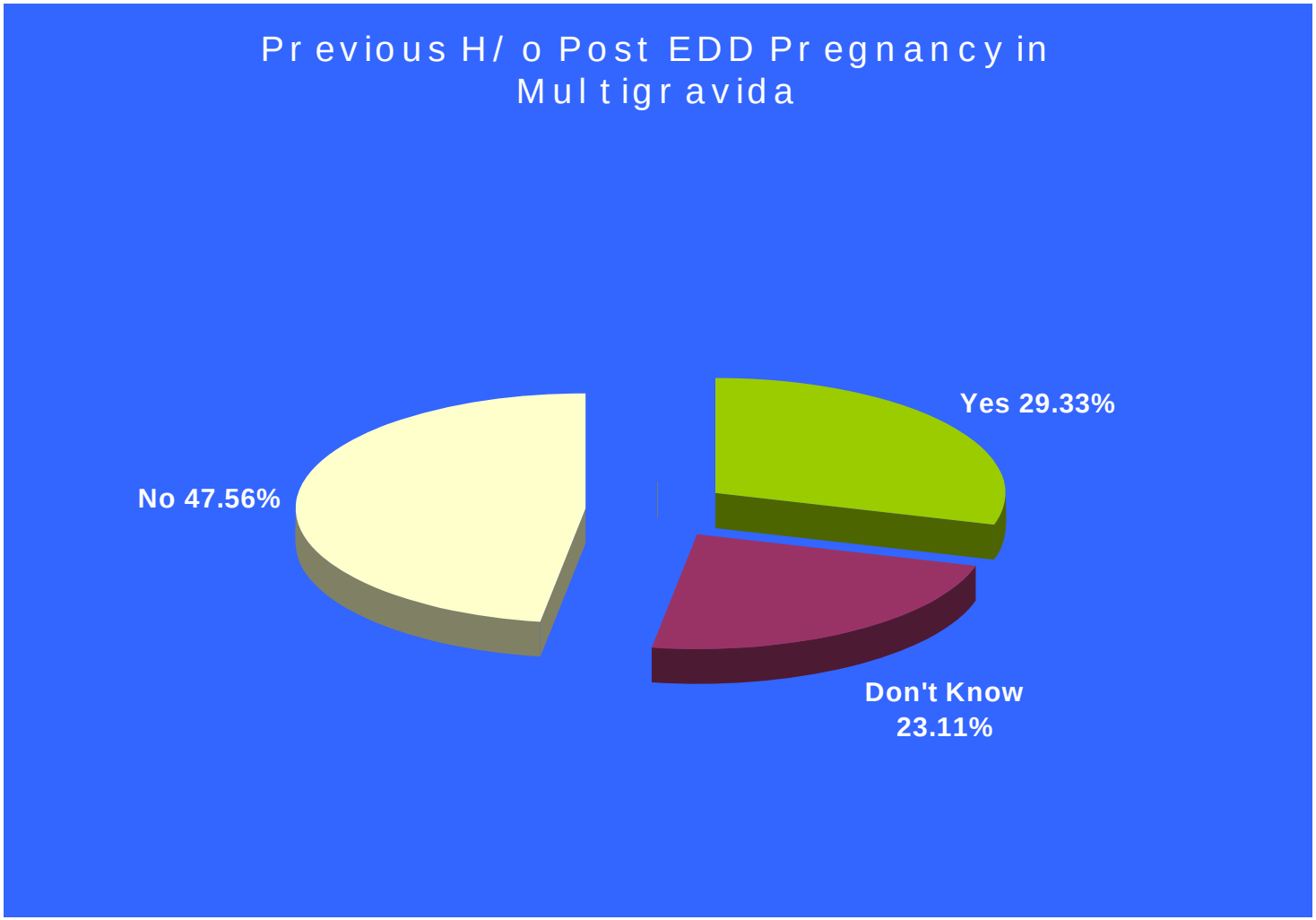

Previous H/ o Post EDD Pregnancy in Multigravida
Yes 29.33%
No 47.56%
Don't Know 23.11%

TABLE-3

PREVIOUS HISTORY OF POST EDD PREGNANCY IN MULTIGRAVIDA

History	**Number of Patients**	**%**
Yes	66	29.33%
Don’t Know	52	23.11%
No	107	47.56%

In this 29.33% of multigravida gives history of previous Post EDD Pregnancy.

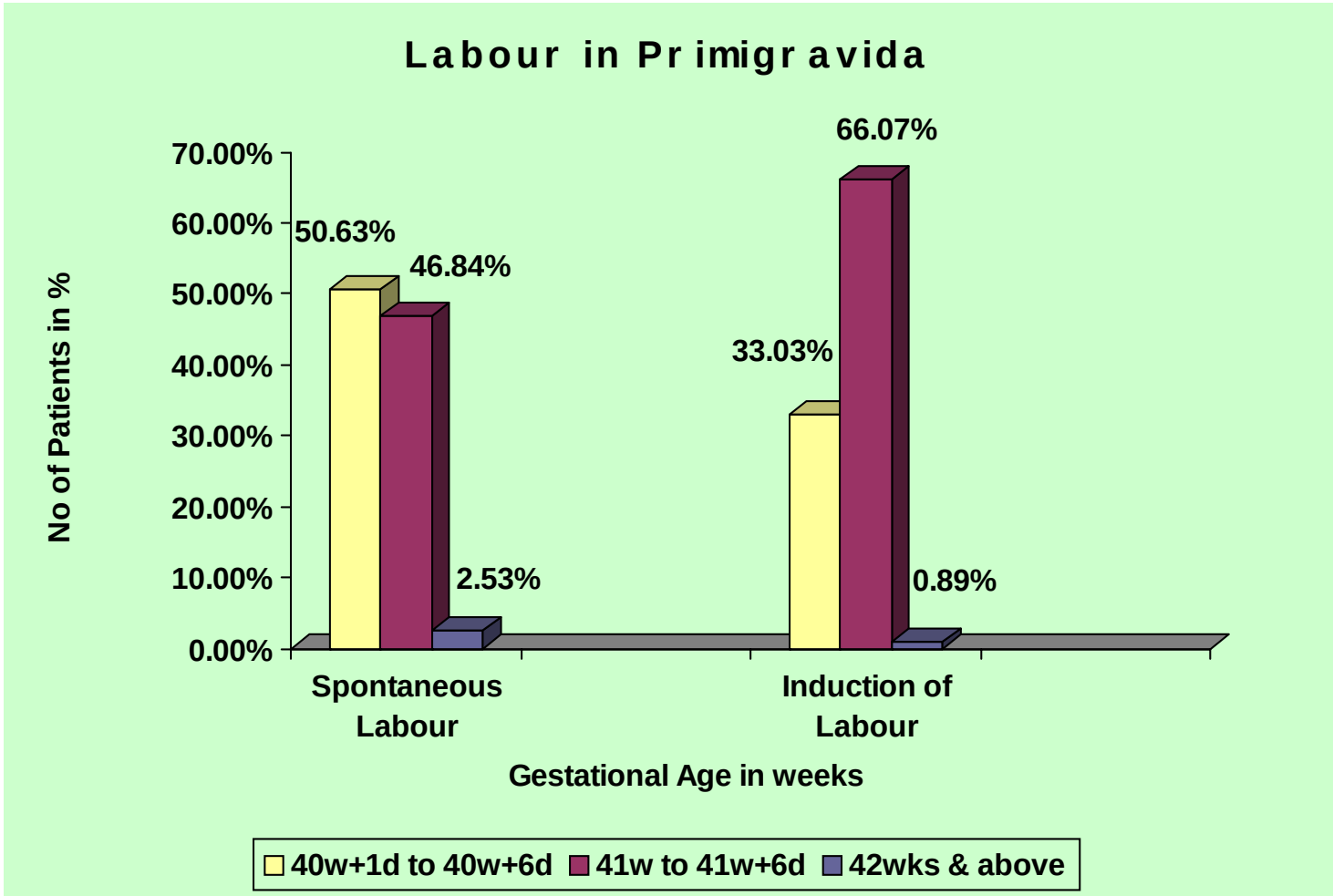

Labour in Primigravida
70.00%
60.00%
50.00%
40.00%
30.00%
20.00%
10.00%
0.00%
No of Patients in %
50.63%
46.84%
2.53%
33.03%
66.07%
0.89%
Spontaneous Labour
Induction of Labour
Gestational Age in weeks
40w+1d to 40w+6d
41w to 41w+6d
42wks & above

TABLE-4

LABOUR IN PRIMIGRAVIDA

Gestational Age in weeks	Spontaneous Labour		Induction of Labour	
	No. of Patients	%	No. of Patients	%
40w +1d to 40w+6d	80	50.63%	37	33.03%
41w to 41w+6d	74	46.84%	74	66.07%
42 wks & above	4	2.53%	1	0.89%
Total	**158**		**112**	

50.63% of patients went in for spontaneous labour in the gestational age 40 weeks to 40 weeks and 6 days. 66.07% of patients had induction of labour at 41 weeks to 41 weeks and 6 days of gestation.

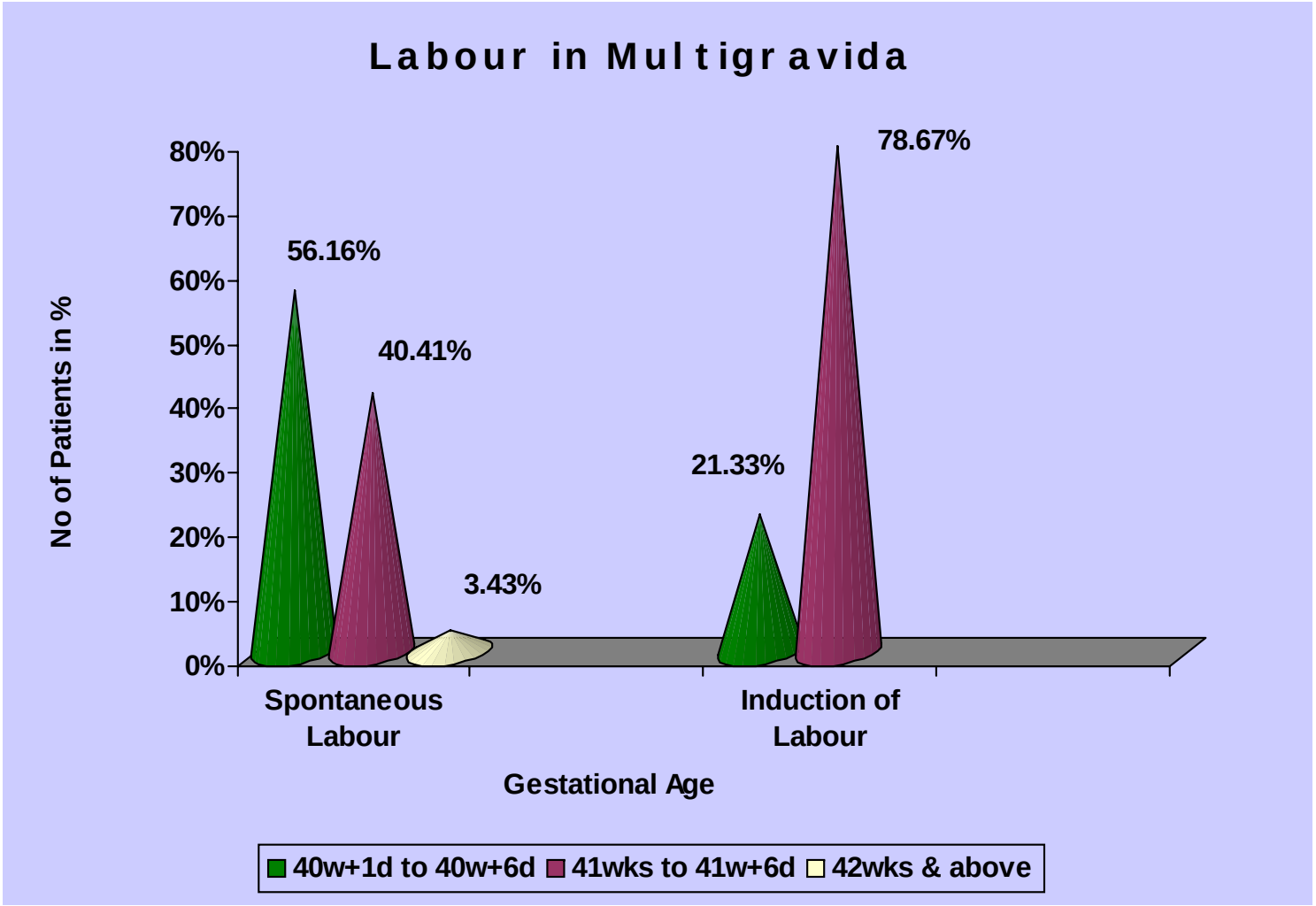

Labour in Multigravida
80%
70%
60%
50%
40%
30%
20%
10%
0%
No of Patients in %
56.16%
40.41%
3.43%
21.33%
78.67%
Spontaneous Labour
Induction of Labour
Gestational Age
40w+1d to 40w+6d
41wks to 41w+6d
42wks & above

TABLE-5

LABOUR IN MULTIGRAVIDA

Gestational Age in weeks	Spontaneous Labour		Induction of Labour	
	No. of Patients	%	No. of Patients	%
40w+1d to 40w+6d	82	56.16%	16	21.33%
41w to 41w+6d	59	40.41%	59	78.67%
42 wks & above	5	3.43%	-	-
Total	**146**		**75**	

78.67% of multigravida had induction of labour between gestational age 41 weeks to 41 weeks and 6 days.

TABLE-6

MODE OF DELIVERY

Mode of Delivery	Primigravida		Multigravida	
	Spontaneous Labour	**Induction Group**	**Spontaneous Labour**	**Induction Group**
Labour Natural	92 (58.23%)	49 (43.75%)	114 (78.08%)	50 (66.67%)
Instrumental Vaginal Delivery	5 (3.17%)	3 (02.68%)	4 (2.74%)	-
LSCS	61 (38.6%)	60 (53.57%)	28 (19.18%)	25 (33.33%)
Total	**158**	**112**	**146**	**75**

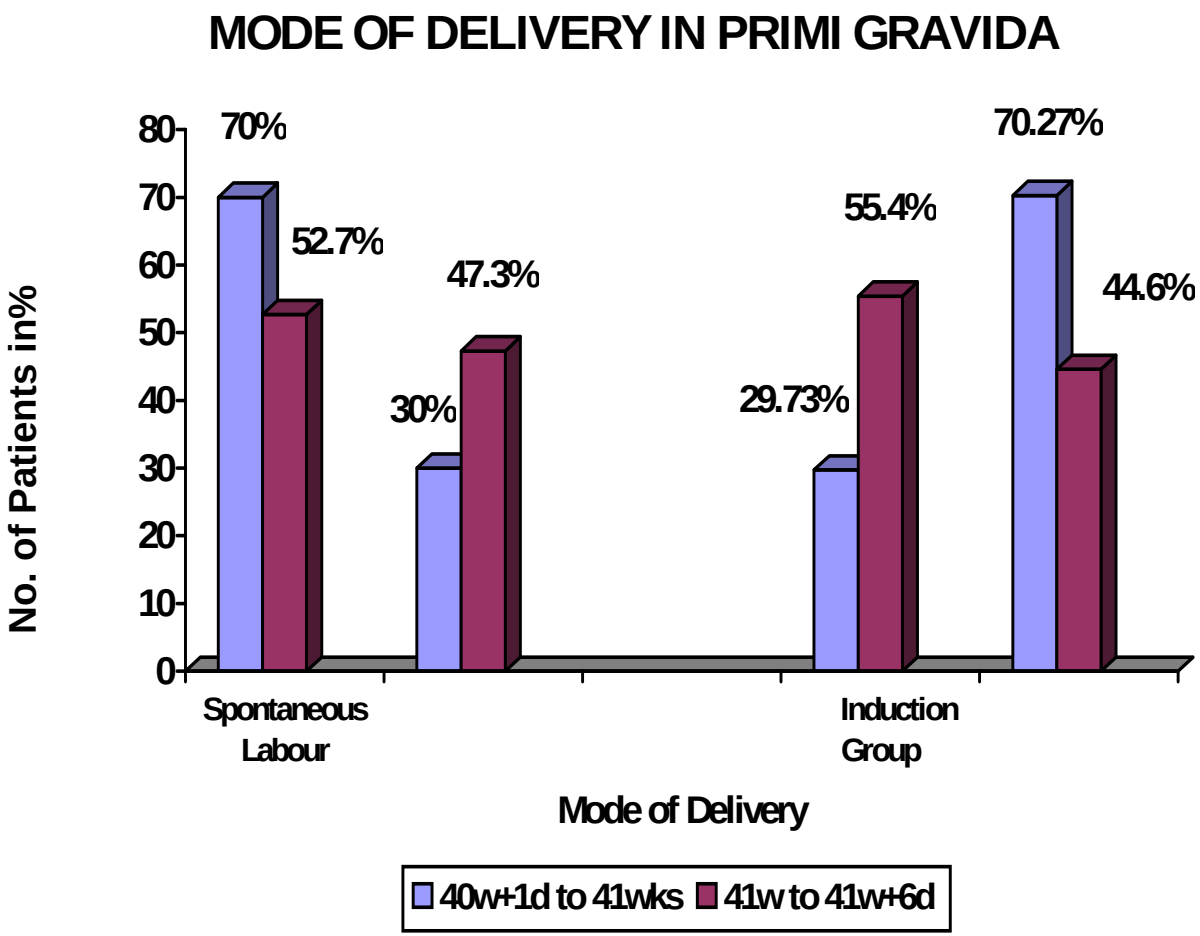

MODE OF DELIVERY IN PRIMI GRAVIDA
No. of Patients in%
80
70
60
50
40
30
20
10
0
70%
52.7%
30%
47.3%
29.73%
55.4%
70.27%
44.6%
Spontaneous Labour
Induction Group
Mode of Delivery
40w+1d to 41wks
41w to 41w+6d

TABLE-7

MODE OF DELIVERY IN PRIMIGRAVIDA

Gestational Age in Weeks	Spontaneous Labour			Induction Group		
	Vaginal Delivery		LSCS	Vaginal Delivery		LSCS
	LN	*IVD*		LN	IVD	
40w+1d to 41wks	52 (65%)	4 (5%)	24 (30%)	11 (29.73%)	-	26 (70.27%)
41w to 41w+6d	38 (51.35%)	1 (1.35%)	35 (47.30%)	38 (51.35%)	3 (4.05%)	33 (44.60%)
42wks & above	2	-	2	-	-	1
Total	**92**	**5**	**61**	**49**	**3**	**60**

LSCS rate is 30% (Spontaneous group) and 70.27% (Induction group) in primigravida between 40 weeks + 1 day to 40 weeks and 6 days and 47.30% (Spontaneous group) and 44.60% (Induction group) between 41 weeks to 41 weeks and 6 days.

MODE OF DELIVERY IN MULTI GRAVIDA

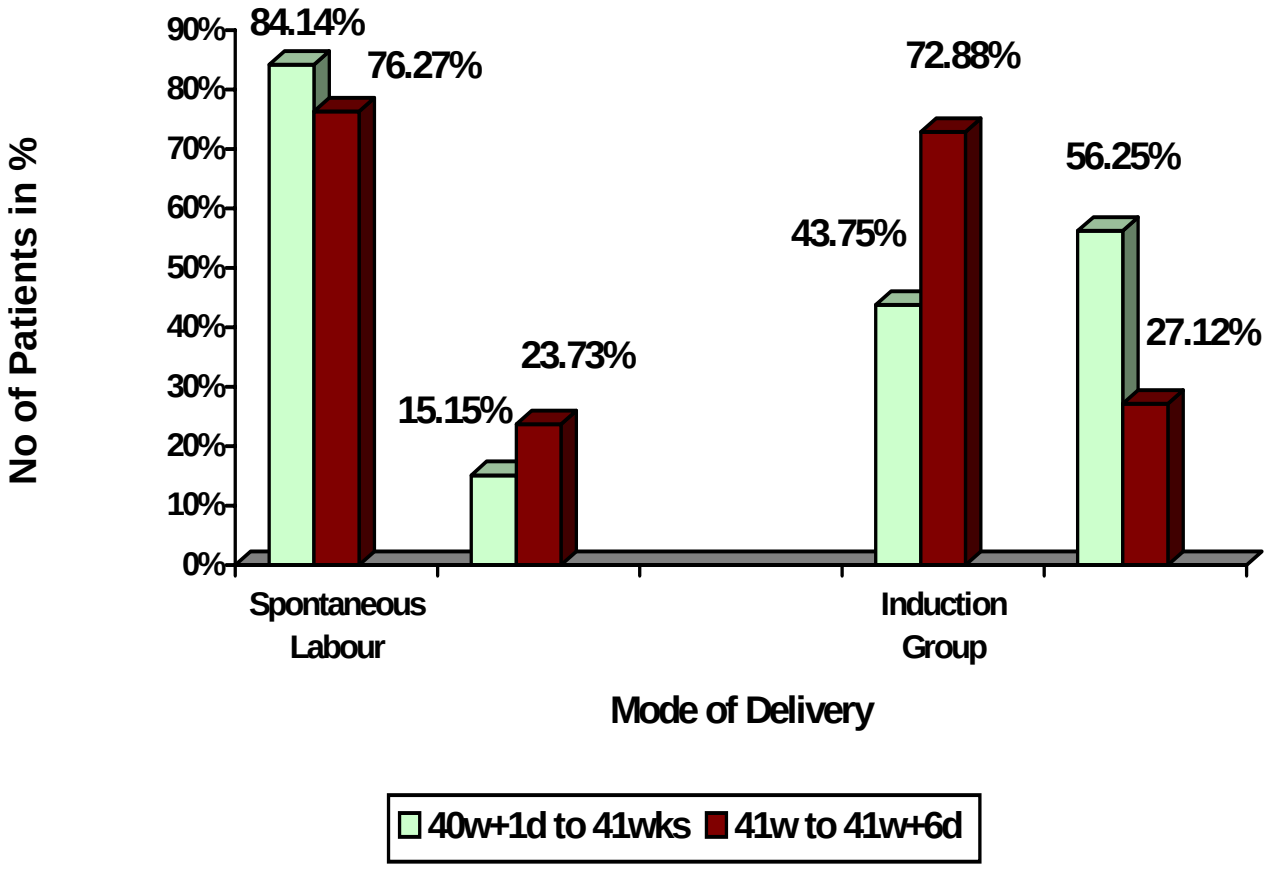


TABLE-8

MODE OF DELIVERY IN MULTIGRAVIDA

Gestational Age in Weeks	Spontaneous Labour			Induction Group		
	Vaginal Delivery		LSCS	Vaginal Delivery		LSCS
	LN	*IVD*		LN	IVD	
40w+1d to 41wks	67 (81.70%)	2 (2.44%)	13 (15.85%)	7 (43.75%)	-	9 (56.25%)
41w to 41w+6d	43 (72.88%)	2 (3.39%)	14 (23.73%)	43 (72.88%)	-	16 (27.12%)
42wks & above	4	-	1	-	-	-
Total	114	4	28	50		25

LSCS rate is 15.85% (Spontaneous group) and 56.25% (Induction group) in gestational age 40 weeks +1 day to 41 weeks and 23.73% (Spontaneous group) and 27.12% (Induction group) in gestational age 41 weeks to 41 weeks and 6 days.

TABLE-9

INDUCTION DELIVERY INTERVAL IN PRIMIGRAVIDA

Dose of PGE2 gel applied	***Induction Delivery Interval***					
	≤6hrs	**>6hrs to ≤12hrs**	**>12hrs to ≤24hrs**	**>24hrs to ≤48hrs**	**>48hrs**	**Total**
1 dose	6	23	51	8	3	91
2 dose 6 hours apart	-	2	7	-	-	9
2 doses 12hours apart	-	-	5	6	-	11
2 doses 24 hours apart	-	-	-	1	-	1

Most of the patients (51) delivered between >12 hours and ≤ 24 hours of induction of labour.

TABLE-10

MODE OF DELIVERY IN INDUCTION GROUP IN PRIMIGRAVIDA

Dose of PGE2 gel applied	***Mode of Delivery***			
	Labour Natural	**IVD**	**LSCS**	**Total**
1 dose	40	1	50	91
2 doses 6hours apart	6	1	2	9
2 doses 12hours apart	3	1	7	11
2 doses 24hours apart	-	-	1	1

Most of the patients (40) had labour natural with single dose of PGE2 gel. One patient had instrumental vaginal delivery and 50 patients had LSCS.

TABLE-11

INDUCTION DELIVERY INTERVAL IN MULTIGRAVIDA

Dose of PGE2 gel applied	*Induction Delivery Interval*					
	≤ 6hrs	**>6hrs to ≤12hrs**	**>12hrs to ≤24hrs**	**>24hrs to ≤48hrs**	**>48hrs**	**Total**
1 dose	5	28	30	2	1	66
2 doses 6hours apart	-	-	3	-	-	3
2 doses 12hours apart	-	-	5	1	-	6
2 doses 24hours apart	-	-	-	-	-	

66 Patients delivered with 1 dose of PGE2 gel. Among them 28 patients delivered within 12 hours and 30 patients delivered between 12 and 24 hours of induction of labour.

TABLE-12

MODE OF DELIVERY IN INDUCTION GROUP IN MULTIGRAVIDA

Dose of PGE2 gel applied	*Mode of Delivery*			
	Labour Natural	**IVD**	**LSCS**	**Total**
1 dose	44		22	66
2 doses 6 hours apart	1	-	4	3
2 doses 12 hours apart	5	-	1	6
2 doses 24 hours apart	-	-	-	-

Among them 44 patients delivered by labour natural with single dose of PGE2 gel and 22 patients had LSCS.

TABLE-13

INDICATIONS FOR CESAREAN SECTION IN PRIMI & MULTIGRAVIDA

Indication	**Primigravida**		**Multigravida**	
	Spontaneous Labour	**Induction Group**	**Spontaneous Labour**	**Induction Group**
Fetal Distress	36 (59.01%)	29 (49.15%)	16 (57.14%)	15 (60%)
CPD	12 (19.67%)	8 (13.33%)	5 (17.85%)	-
CPD with Fetal Distress	2 (3.27%)	1 (1.67%)	-	-
Failed Acceleration	4 (6.56%)	6 (10%)	2 (7.14%)	2 (8%)
CPD / Oligohydramnios	-	1 (1.67%)	-	-
Failed Induction	-	8 (13.33%)	-	7 (28%)
Deep Transverse Arrest	1 (1.64%)	-	-	-
Fetal Alarm Signal	3 (4.91%)	4 (6.67%)	4 (14.29%)	1 (4%)
Oligohydramnios with Fetal Distress	1 (1.64%)	2 (3.33%)	1 (3.58%)	-
Oligohydramnios with Fetal Alarm Signal	1 (1.64%)	1 (1.67%)	-	-
Persistent Occipito Posterior presentation	1	-	-	-
Total	**61**	**60**	**28**	**25**

The most common indication for LSCS being fetal distress constitutes 59% (Spontaneous Labour) and 49.15% (Induction group) in Primigravida and 57.14% (Spontaneous labour) and 60% (Induction group) in Multigravida.

BIRTH WEIGHT OF BABIES ACCORIDING TO GESTATIONAL AGE

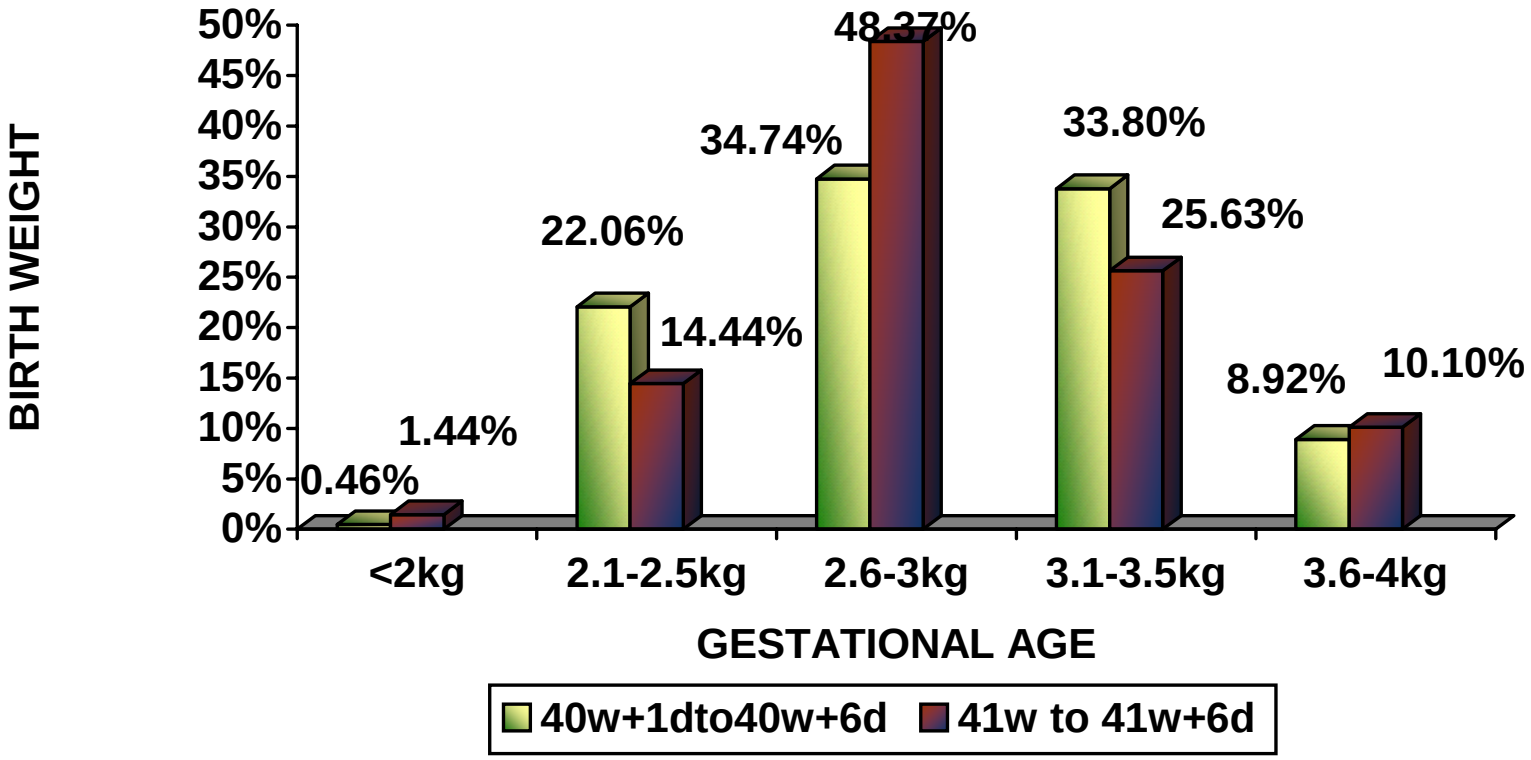


TABLE-14

BIRTH WEIGHT OF BABIES ACCORDING TO THE GESTATIONAL AGE

Birth Weight	40w +1d to 40w+6d	41w to 41w+6d	42wks & above
<2kg	1 (0.46%)	4 (1.44%)	-
2.1-2.5kg	47 (22.06%)	40 (14.44%)	6 (60%)
2.6-3kg	74 (34.74%)	134 (48.37%)	3 (30%)
3.1-3.5kg	72 (33.80%)	71 (25.63%)	1 (10%)
3.6-4kg	19 (8.92%)	28 (10.10%)	-
>4kg	-	-	-
Total	**213**	**277**	**10**

In Gestational age between 40 weeks + 1 day to 40 weeks 6 days 0.46% weigh <2kg, 22.06% weigh 2.1 to 2.5kg. In Gestational age between 41 weeks to 41 weeks and 6 days 1.44% weigh <2kg and 14.44% weigh between 2.1 to 2.5kg. There is no statistical significance in difference of birth weight between the two groups.

GRADING OF MECONIUM

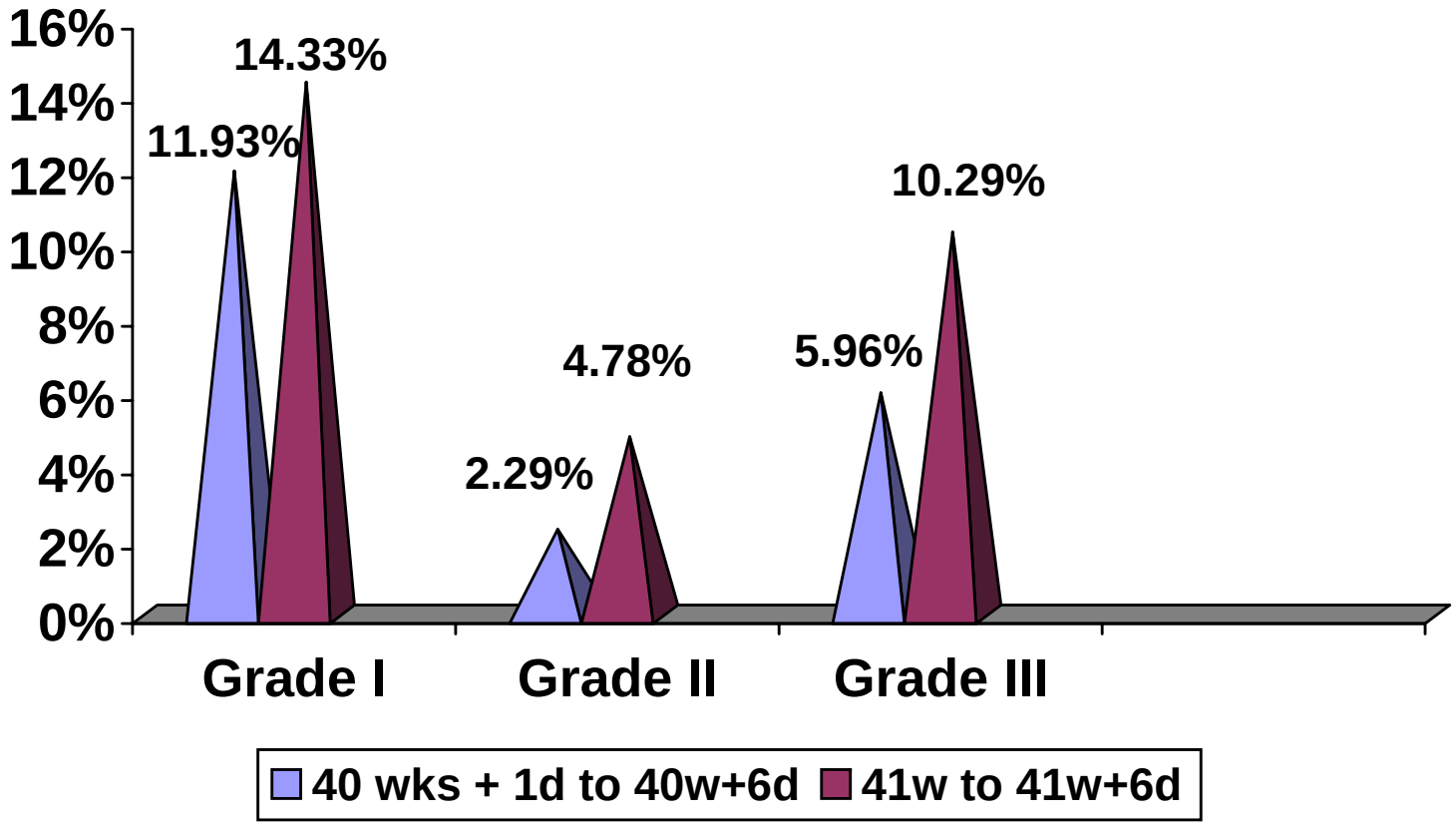


TABLE-15

GRADING OF MECONIUM

Grade of Meconium	***Gestational Age***		
	40 wks + 1d to 40w+6d	**41w to 41w+6d**	**42wks & above**
Grade I	26 (11.93%)	39 (14.33%)	1 (10%)
Grade II	5 (2.29%)	13 (4.78%)	-
Grade III	13 (5.96%)	28 (10.29%)	2 (20%)

- Incidence of MSAF at 40w to 40w+6d - 20.18%

- Incidence of MSAF at 41w to 41w+6d-29.41%

TABLE-16

NEONATAL MORBIDITY

Neonatal Morbidity	Spontaneous Labour			*Induction Group*		
	40 w+1d to 40w+6d	41wks to 41wks +6d	42wks & above	40w+1d to 40w+6d	41wks to 41wks+ 6d	42wks & above
Respiratory Distress	7	18	1	2	11	
Perinatal Hypoxia	5	2			1	
Transient Tachypnea of new born	1				1	
MAS	3	4		1		
Large for gestational age	1	1				
IUGR	1	2			1	
SGA		3				

3 babies had MAS between 40 weeks +1 day to 40 weeks and 6 days in Spontaneous labour group and 4 babies had MAS between 41 weeks to 41 weeks and 6 days in spontaneous group. Only one baby had perinatal hypoxia in induction group between 41 weeks to 41 weeks and 6 days.

STATISTICAL ANALYSIS

1. Comparing the Cesarean section rate in spontaneous group in A & B, 40-40 weeks + 6 days (30%) (A) & 41-41 weeks + 6 days (47.3%) (B) in primigravida

Gestational Age	***Mode of Delivery***			
	Normal Delivery	**Cesarean Delivery**	***Total***	**Percentage**
40-40 wks + 6d (A)	56	24	80	
41-41 wks + 6d (B)	39	35	74	

P=0.03 significant.

There is increased incidence of LSCS in spontaneous labour group in 41 weeks to 41 weeks and 6 days and this may be due to increased incidence of MSAF (29.41%) and fetal distress.

2. Comparing the Cesarean Section in Induced Group in (A) (70.27%) (40-40 wks + 6 days) and B (44.60%) (41-41 wks + 6 days) in Primigravida.

Gestational Age	***Mode of Delivery***			
	Vaginal Delivery	**Cesarean Delivery**	**Total**	**Percentage**
40w -40 wks + 6 d (A)	11	26	37	
41wks - 41 wks + 6d (B)	41	33	74	

p=0.01 significant

There is increased incidence of LSCS in Induced group in A and this may be due to unfavourable cervix during induction in this group and favourable cervix during induction between 41 weeks to 41 weeks and 6 days.

3. Comparing the Cesarean section rate in Spontaneous Labour (30%) and Induction Group (70.27%) in 40-40 weeks + 6 days in Primigravida

Type of Labour	***Mode of Delivery***			
	Vaginal Delivery	**Cesarean Delivery**	**Total**	**Percentage**
Spontaneous Labour (A)	56	24	80	
Induced Group (B)	11	26	37	

p=0.001 significant

There is increased incidence of cesarean section in induction group than spontaneous labour group because of the unfavourable bishop score during induction between 40 weeks + 1 day to 40 weeks and 6 days.

4. Comparing the Cesarean Section rate in Spontaneous (A) Labour group and induced (B) group at 41 to 41 weeks + 6 days in Primigravida.

Type of Labour	***Mode of Delivery***			
	Vaginal Delivery	**Cesarean Delivery**	**Total**	**Percentage**
Spontaneous Labour (A)	39	35	74	
Induced Group (B)	41	33	74	

p=0.74 Not significant

The cesarean section rate in spontaneous labour group and induction group in gestational age 41 weeks to 41 weeks and 6 days is not statistically significant. Induction at 41 weeks of gestation does not increases the rate of cesarean section.

5. To compare the statistical significance of cesarean section in 40weeks-40weeks + 6 days (Group A) and 41-41 weeks and 6 days (B) in Primigravida.

Gestational Age	***Mode of Delivery***			
	Vaginal Delivery	**Cesarean Delivery**	**Total**	**Percentage**
40w -40 wks + 6 d (A)	67	50	117	
41wks - 41 wks + 6d (B)	80	68	148	

p=0.60 statistically not significant

The caesarean section rate between 40 weeks + 1 day to 40 weeks 6 days and 41 weeks to 41 weeks 6 days is not statistically significant.

6. To compare the Cesarean section rate in Spontaneous group (A) in 40weeks +1 day - 40 weeks + 6 days and (B) 41-41 weeks + 6 days in Multigravida.

Gestational Age	***Mode of Delivery***			
	Vaginal Delivery	**Cesarean Delivery**	**Total**	**Percentage**
40w -40 wks + 6 d (A)	69	13	82	
41wks - 41 wks + 6d (B)	45	14	59	

p=0.24 statistically not significant

The Cesarean section rate in Spontaneous group (A) in 40 weeks + 1 day – 40 weeks + 6 days and (B) 41-41 weeks + 6 days in Multigravida is not statistically significant.

7. To compare the Cesarean section rate in Induced Group in (A) (56.25%) 40-40 weeks + 6 days and (B) (27.12%) 41-41 weeks + 6 days in Multigravida.

Gestational Age	***Mode of Delivery***			
	Vaginal Delivery	**Cesarean Delivery**	**Total**	**Percentage**
40w -40 wks + 6 d (A)	7	9	16	
41wks - 41 wks + 6 d (B)	43	16	59	

p=0.03 statistically significant

The cesarean section rate in induced group between A and B is statistically significant because of the unfavourable cervix during induction between 40 weeks + 1 day to 40 weeks 6 days of gestation in multigravida.

8. Comparing the Cesarean section rate in Spontaneous (A) and (B) Induced Group in 40-40 weeks + 6 days in Multigravida.

Type of Labour	***Mode of Delivery***			
	Vaginal Delivery	**Cesarean Delivery**	**Total**	**Percentage**
Spontaneous Labour (A)	69	13	82	
Induced Group (B)	7	19	16	

p=0.001 statistically significant

There is increased incidence of caesarean section in induction group than spontaneous labour group because of the unfavourable bishop score during induction.

9. Comparing the Cesarean Section rate in Spontaneous (A)(23.73%) and Induced Group (B) (27.12%) in 41-41 weeks + 6 days in multigravida.

Type of Labour	***Mode of Delivery***			
	Vaginal Delivery	**Cesarean Delivery**	**Total**	**Percentage**
Spontaneous Labour (A)	45	14	59	
Induced Group (B)	43	16	59	

p=0.67 statistically not significant

By statistical analysis in our study there is no increase in incidence of cesarean section between 41 – 41 weeks + 6 days of gestation in induction group due to favourable cervix during induction.

10. To Compare the Statistical Significance of Cesarean section in (A) 40-40 weeks+6 days (B) 41-41 weeks + 6 days in Multigravida

Gestational Age	***Mode of Delivery***			
	Vaginal Delivery	**Cesarean Delivery**	**Total**	**Percentage**
40w - 40 wks + 6d (A)	76	22	98	
41wks - 41 wks+6d (B)	88	30	118	

P=0.61 statistically not significant

The Cesarean section in (A) 40-40 weeks+6 days (B) 41-41 weeks + 6 days in Multigravida is not statistically significant.

PERINATAL OUTCOME:

A. In Spontaneous Labour

Gestational Age at Spontaneous Labour	***Adverse Perinatal Outcome***		
	Vaginal Delivery	**LSCS**	**Total**
40-40 wks + 6 d	14/125 (11.2%)	6/37 (16.21%)	20
41-41 wks + 6 d	8/84 (9.52%)	18/49(36.73%)	26

p=0.31 statistically not significant

Comparing the adverse perinatal outcome between 40-40 weeks + 6 days and 41-41weeks + 6 days p=0.31 and it is not statistically not significant.

B. In Induction Group

Gestational Age at Induction	*Adverse Perinatal Outcome*		
	Vaginal Delivery	**LSCS**	**Total**
40-40 wks + 6 d	2/18 (11.11%)	3/35 (8.57%)	5
41-41 wks + 6 d	5/84 (5.95%)	7/49(14.28%)	12
42 & above	-	-	

p=0.01 statistically significant

Comparing the perinatal outcome between 40-40 weeks + 6 days and 41-41weeks + 6 days p=0.01 and it is statistically significant.

DISCUSSION

The study population consisted for 500 Antenatal patients who had gone beyond their expected date of confinement.

55% of them, were primigravida and 45% of them were multigravida

TABLE – 1

Incidence in Primigravida

S.No.	Authors	% of Primigravida
1.	Robert Volta	33%
2.	Eden Associates	38%
3.	Campbell et al	42.3%
4.	Present Study	55%

TABLE – 2

Recurrence of Prolonged Pregnancy

S.No.	Authors	% of Recurrence
1.	Backketeig and Bergsjo (1991)	10-27%
2.	Mogren et al	12.5-15.8%
3.	Norwegian Study	27%
4.	Present Study	29.33%

TABLE – 3

Induction of Labour at 40 weeks of Gestation

S.No.	Authors	% of Induction
1.	Prabha Singal (2001)	47%
2.	Egarter et al	47%
3.	Tylleskal et al	48%
4.	Martin et al (1978)	50%
5.	Cole et al (1975)	50.2%
6.	Sande et al (1983)	54%
7.	Present Study	33% & 21.33%

Induction of labour at 40 weeks of gestation to 40w+6d is 33.03% in primigravida and 21.33% is multigravida.

TABLE – 4

Induction of labour at 41 weeks of gestation

S.No.	Authors	% of Induction
1.	Prabha Singal (2000)	40%
2.	Augensen et al (1987)	47%
3.	Heden et al (1991)	50%
4.	Hannah et al (1992)	54%
5.	Present Study	66% & 78.67%

Induction of labour at 41 weeks of gestation in primigravida is 66.07% and in multigravida 78.67%.

TABLE -5

Definition of Post Term by Various Authors

S.No.	Study	No of Days Over Due
1.	Dyson (1987) USA	287
2.	Witter (1987)USA	287
3.	Martin (1989) USA	287
4.	NIHCD (1994) USA	287
5.	Hannah (1992) India	287
6.	James (2001) India	287
7.	WHO (1994)	294
8.	FIGO	294
9.	Bergsjo (1989) China	294
10.	Herabutya (1992) Thailand	294
11.	Kaiz et al (1983)	294
12.	Roach (1997) China	294
13.	Augensen (1989) Norway	290
14.	Chanrachakul 2002 (Thailand)	290
15.	Prabha Singal (Indian Study)	281
16.	Present Study	294

Indian studies stated above vote for 287 days and also the famous Hannah study (n=3407 women) also says that definition of post term as 287 days.

Another Indian study says that certain ethnic groups such as Indians have a tendency towards early maturity and there is a predisposition to post mature state even at 40 weeks of gestation and hence they require antenatal surveillance before 40 weeks as there is progressive uteroplacental insufficiency when pregnancy crosses 40 weeks.

TABLE – 6

Various Methods of Antepartum testing in prolonged pregnancy by different groups.

S.No.	Authors	Methods
1	Henry et al	Amnioscopy
2.	Suikkari et al	NST, HPL, Serum estradiol & AFI / Every 3 days
3.	Dyson et al	NST twice weekly & AFI weekly between 41 & 42 weeks
4.	Martin et al	NSI & AFI weekly
5.	Bergsjo et al	FKC, Atropine test, USG, Urinary Estriol
6.	NIHCD et al	NST & AFI twice weekly
7.	Hannah et al	FKC Daily, NST & AFI – 2-3 times / week
8.	James et al	FKC & BPP on alternate day
9.	Present Study	FKC Daily, AFI weekly, Clinically Assessment of Liquor.

TABLE – 7

Various Methods of Induction used by Different authors.

S.No.	Study Group	Methods of Induction
1.	Dyson	PGE2gel intravaginally & oxytocin infusion & amniotomy
2.	Witter	Oxytocin & Amniotomy
3.	Bergsjo	Membrane Stripping, Oxytocin infusion & amniotomy
4.	NIHCD	PGE2gel intracervically, oxytocin infusion & Amniotomy
5.	Hannah	PGE2gel (0.5mg) intracervically every 6hrs x 3 times & oxytocin infusion, amniotomy or both
6.	James (India)	Extramniotic saline infusion if Bishop score <5, if >5, Memb.stripping amniotomy oxytocin infusion.
7.	Present Study	Membrane Stripping, PGE2 (0.5mg) gel intracervically, oxytocin induction, Amniotomy.

The common indications for induction at 40 weeks and above .

1. Decreased fetal movement by patient history.
2. Non reactive NST
3. Oligohydramnios
4. Meconium stained liquor
5. Favourable Cervix
6. Patient Request

Sweeping or Stripping of membranes, is digital separation of membranes at 38-40 weeks which decreases the frequency of postterm pregnancy stated by Boulvain and co authors. He stated in his metaanalysis that it did not modify neither the cesarean delivery rate nor maternal and neonatal infections. Another study by Berghella states that women who received stripping had earlier delivery Vs those who did not ($p=<0.005$) and it is a safe method to reduce prolonged pregnancies.

In present study stripping caused onset of labour within 12 to 24 hours in favorable cervix group.

TABLE - 8

Incidence of MSAF

S.No.	Authors	40 Weeks	41 Weeks	42 Weeks & Above
1.	Meis et al 1978	30%	-	50%
2.	Steer et al 1989	30%	-	50%
3.	Miller & Read 1981	30%		50%
4.	Williams Obstetrics	21%	25%	23%
5.	Present Study	20.18%	29.41%	

This is not a specific indicator of fetal hypoxia but there is a good evidence that Cord arterial blood pH is lower in babies who show FHR abnormalities with MSAF than in FHR abnormalities with clear liquor.

TABLE - 9

Comparison of Cesarean Section rate in spontaneous & Induced labour.

S.No.	Authors	At 40 Weeks	
		Spontaneous	Induced
1	Sande et al	5.26%	3%
2.	Breait et al	2%	6%
3.	Present Study	30% (Primi) & 15.85% (Multigravida)	70.27% (Primi) & 56.25% (Multigravida)

TABLE – 10

Comparison of Cesarean Section rate in spontaneous & Induced labour.

At 41 weeks of gestation

S.No.	Authors	At 41 Weeks	
		Spontaneous	**Induced**
1.	Hannah et al	21%	24%
2.	NICHD	23%	18%
3.	Present Study	47% (Primi) & 23.73% (Multigravida)	44.60% (Primi) & 27.12 (Multigravida)

SUMMARY

1. The study population consisted of 500 AN women who had regular cycles and they had crossed the expected date of confinement.

2. Of these 118 primigravida and 100 multigravida were in the gestational age 40 weeks – 40 weeks and 6 days 152 primigravida and 120 multigravida were in the gestational age 41 weeks – 41 weeks & 6 days 10 had crossed 42 weeks of gestation.

3. There were 275 (55%) primigravida and 45% (225) multigravida.

4. Previous H/o overdue pregnancy that has gone beyond dates – 29.33%.

In women of gestational age between 40 weeks +1 day – 40 weeks & 6 days.

1. In this group there were 118 (primigravida) and 100 (multigravida).

2. Induction rate was 33.03% in primigravida and 21.33% (multigraida)

3. Of the various modes of Induction, in this study Induction of labour was done with Intracervical PGE2 gel application.

4. 50.63% (primigravida) and 56.16% (Multigravida) went in for spontaneous labour and cesarean section was done in 30% in primigravida and 15.85% in multigravida.

5. Instrumental vaginal delivery constituted 5% in primigravida and 2.44% in multigravida.

6. 33.03% of primigravida and 21.33% of multigravida had induction of labour, and cesarean section was done in 70.27% of primigravida and 56.25% in multigravida.

In women of 41 weeks – 41 weeks & 6 days of gestation.

1. In this group there were 152 (primigravida) and 120 (multigravida).

2. Favourable cervix was found in 60% and unfavourable cervix was found in 40% of women between 41 weeks and 41 weeks & 6 days of gestation.

3. All of them in the induction group were induced with PGE2 gel intracervical 0.5mg.

4. 46.84% of primigravida and 40.41% of multigravida went in for spontaneous labour and cesarean section was done in 47.30% in primigravida and 23.73% in multigravida.

5. Instrumental vaginal delivery constituted 3.39% in spontaneous group in multigravida and 1.35% in spontaneous group in primigravida and 4.05% in induction group in multigravida.

6. 78.67% of multigravida and 66.07% of primigravida had induction of labour and cesarean section was done in 44.60% in primigravida and 27.12% in induction group in multigravida.

Most of the primigravida (91 of them) had had only one dose of PGE2 gel. Among them 51 patients delivered between 12 and 24 hours of Induction of labour.

Among the primigravida who had single dose application of PGE2 gel 40 patients had labour Natural, 1 patient had instrumental vaginal delivery and 50 patients had LSCS.

In multigravida 66 patients had 1 dose of PGE2 gel application. Among them 28 patients delivered with in 12 hrs of application and 30 patients delivered between 12 and 24 hours of application.

Among the 66 patients 44 patients delivered by labour natural and 22 patients had LSCS.

Indications for Cesarean section in primigravida:

The most common indication for LSCS being Fetal distress and constitutes 59.01% in spontaneous group and 49.15% in Induction group.

Failed Induction constitutes 13.33% in Induction group in primigravida.

Inductions for cesarean section in multigravida:-

Even in multigravida the most common indication for LSCS was fetal distress and constitutes 57.14% in spontaneous group and 60% in induction group.

Failed induction constitutes 28% in indication group in multigravida.

In gestational age between 40 weeks and 1 day to 40 weeks & 6 days 0.46% of babies were less than 2 kg. 22.66% were between 2.1-2.5 kg and 34.74% were between 2.6-3kg and 8.92% were between 3.6-4kg.

In gestational age between 41 weeks to 41 weeks and 6 days, 1.44% of babies were less than 2 kg, 14.44% were between 2.1 and 2.5 kg and 10.10% were between 3.6 to 4 kg.

Incidence of Meconium stained Amniotic fluid at various gestational age:

Incidence of MSAF at 40 weeks to 40 weeks +6 days – 20.18%

Incidence of MSAF at 41 weeks to 41 weeks + 6 days – 29.41%

As gestational age advances, the incidence of MSAF increases.

In the Gestational age 40-41 weeks, 11.93% had Grade I, 2.29% had Grade II and 5.96% had Grade III meconium stained Amniotic fluid.

In Gestational age between 41 weeks to 41 weeks and 6 days 14.33% had Grade I, 4.78% had Grade II and 10.29% had Grade III meconium stained amniotic fluid.

Perinatal outcome in pregnancies that has gone beyond the EDC.

In spontaneous labour group in gestational age of 40 weeks + 1 day – 40 weeks +6 days 7 babies had RDS, 3 babies had MAS, 1 baby was an LGA baby and there was one IUGR neonate.

In induction group in GA of 40 weeks + 1 day – 40 weeks + 6 days 2 babies had RDS and 1 had MAS and all of them were discharged and there was no neonatal mortality in any of these groups.

In induction group in gestational age between 41 weeks to 41 weeks + 6 days, 11 babies had RDS, and in spontaneous labour group 18 babies had RDS.

Perinatal outcome in the form of morbidity in spontaneous labour group between 40-41 weeks and 41-41 weeks + 6 days is not statistically significant. P=0.31, irrespective of the mode of delivery.

Comparing the perinatal outcome in induced group in gestational age between 40-41 weeks and 41-42 weeks, p=0.01, and it is statistically significant.

It is being attributed as beyond 41 weeks of gestation, oligohydramnios develop and as the mature fetus passes meconium. Most often it is undilicated and premature hypoxia and meconium passes beyond vocal cord and cause chemical pneumonitis, MAS and its consequences and it ccarries high mortality rate.

CONCLUSION

Whenever a pregnant women crosses her expected date of confinement the patient become anxious and it becomes a high risk pregnancy, as it carries increased morbidity to the mother and fetus as gestational age advances.

The effective management of these situation beings at booking. Where resources allow, routine early trimester USG is provided for all women to accurately date the pregnancy, to avoid unnecessary induction of labour and there by decreasing the cesarean section rate.

Assessment of the patient by the obstetrician should being by careful review of dates and supporting it with the early trimester ultrasound and proper evaluation of associated risk factors if present. An obstetric ultrasound for assessment of amniotic fluid and abdominal circumference and Doppler if necessary are to be performed, if IUGR is suspected.

Vaginal examination to assess the state of cervix should be done and management options to be individualized according to each patient, so optimize the maternal and fetal outcome.

Various Indian studies also state to induce labour at 41 completed weeks, so Induction of labour optimally in otherwise uncomplicated pregnancies at 41 weeks of gestation is not associated with increased risk of perinatal morbidity and no effect on the risk of caesarean section.

In our study there is no increased incidence of cesarean section in women induced at 41 weeks of gestation. Hence induction of labour at 41 weeks of gestation. Hence induction of labour at 41 weeks of gestation does not increase the cesarean section rate compared to women managed expectantly.

This result was the same as that of review of meta analysis of 14 trials involving 6,284 women (Henry, Kat2 et al, Suirkkari et al, cardazo et al. Mannah et al, Herabutya et al) of all the studies, Hannah et al, study is a much larger one and states that women in induction group had a lower rate of cesarean section. A number of secondary analysis carried out to verify the above statement and proved that induction of labour after 41 weeks of gestation does not increase the cesarean section rate.

PROFORMA

Serial No:

Date of Admission:

Name & Age:

IP No:

Unit:

Socioeconomic Status:

Booked / Unbooked:

Obstetric Code: G P L A

Last Menstrual Period:

Expected Date of delivery:

Detailed Menstrual History:

Marital History:

Obstetric History:

Previous Obstetric History:

Previous H/o Post EDD Pregnancy and details of previous obstetric outcome.

Personal History:

General Examination

To look for Anemia

Pedal edema

Nutritional status

Height	Thyroid
Weight	Breast
Gait	Spine

Vital Signs

Temperature:

Pulse rate:

Blood pressure:

Respiratory rate:

Systemic Examination:

Cardiovascular system –

Respiratory System –

Obstetric Examination

Abdominal Examination:-

Inspection:-

Palpation:-

Presentation, Position

Feel of the head

Liquor adequacy

Auscultation :-

Vaginal Examination:-

Bishop score – Favourable / Unfavourable

Pelvis

Estimated fetal weight:-

Investigations:-

Hemoglobin, PCV, Platelets
Blood sugar, urea, serum creatinine
HIV, Blood VDRL
Blood Group & Type

Obstetric Ultrasound:

Dating USG
After Admission

- Presentation
- Fetal Biometry
- Amniotic fluid index
- Placental grading
- Fetal heart / Movement

Biweekly Non stress test and AFI

Delivery:-

- Spontaneous labour / Induction
- Gestational Age at which Induction was done
- Date of delivery
- Mode of delivery
    - Labour Natural
    - Instrumental Vaginal delivery
    - Cesarean section

Colour of Liquor:-

Clear / Meconium stained – Grade I / II / III

Induction delivery interval

Neonatal Outcome:

Weight & Sex of the baby

Features of post maturity syndrome – Present / Not

NICU admission

Respiratory distress, Perinatal Hypoxia

MAS

IUGR

Macrosomia

Neonatal Mortality (if any):-

ABBREVIATIONS

1.	GA	-	Gestational Age
2.	MSAF	-	Meconium Stained Amniotic Fluid
3.	AFI	-	Amniotic Fluid Index
4.	NST	-	Non Stress test
5.	MAS	-	Meconium Aspiration Syndrome
6.	IUGR	-	Intrauterine growth restriction
7.	CPD	-	Cephalo pelvic disproportion
8.	FD	-	Fetal Distress

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Master Chart

S. No.	Name	Age	Ob.Code	EDD	NST	AFI	GA at Ind. / Deli.	Dose of PGE2 Gel	I.D.I	Colour of iquor	Indication for Lscs	Mode of delivery	Baby Details	Admission in PTU	Reason	Followup & Discharge
1	Mohana	19	P	19.01.06	R	9	40+5	-		C		1	b 3 Kg 8/10, 9/10			
2	Shanthi	23	P	13.01.06	R	9	41+2	2 does 6hrs apart	22hrs	C	FI	2	b 3.5Kg 8/10, 9/10			
3	Vanitha	25	P	02.01.06	R-NR	9	40+2	1	18hrs	c	FAS	2	b 3.2 Kg 8/10, 9/10			
4	Jayanthi	23	P	31.01.06	R	8.7	40+5	-		Thin MSL		1	b 3Kg 7/10, 8/10			
5	Kumari	19	P	24.01.06	R	7	40+2	-		C		1	g 2.5 Kg 8/10, 9/10			
6	Radhika	23	P	06.01.06	R	12	42	-		C	CPD	2	b 3.4 Kg 7/10, 8/10			
7	Malathy	21	P	16.01.06	R	10	40+1	-		thin MSL	CPD/FD	2	b 3.5 Kg 7/10, 9/10			
8	Amudha	25	P	16.01.06	NR	8	41+5	-		Thick MSL	FD	2	g 2.75 Kg 5/10, 6/10	Term/AGA/ RD/MAS	RD/MAS	6th PND
9	Karpagavalli	24	P	04.01.06	R -NR	5	41	1 dose	15 hrs	C	FD / Oligo	2	g 3Kg 7/10, 9/10			
10	Amul	23	P	04.01.06	R	2.9	40+6	-		C reduced	FD	2	b 3.45 Kg 7/10, 9/10			
11	Chengammal	20	P	05.01.06	R	8.9	40+5	-		C	CPD	2	g 3 Kg 7/10, 9/10			
12	Suguna	25	P	02.01.06	R		41 +	2 does 6hrs apart	20 hrs	C		3	b 3.3 Kg 6/10, 8/10			
13	Kumari Devi	22	P	01.01.06	R		40+5	1 dose	14 hrs	C		1	g 2.65 Kg 7/10, 8/10			
14	Karpagam	27	P	21.02.06	R	9	40+3	2doses 12 hrs apart	21hrs	Thick MSL	FD	2	b 3.5 Kg 6/10, 7/10			
15	Mahalakshmi	27	P	16.02.06	R	13.9	40+4	-		C		3	b 3.3 Kg 6/10, 17/10			
16	Sujatha	20	P	24.02.06	R	11	40+2	-		Thick MSL	FD	2	b.24 Kg 5/10, 6/10	Term/AGA/ RD	Perinatal hypoxia	7th PND
17	Saraswathi	26	P	16.02.06	R	12	41+1	2 doses 12 hrs apart	30 hrs	C	FI	2	b 2.85Kg 8/10, 9/10			
18	Sridevi	20	P	27.02.06	R	13	41+3	-		C		1	g 2.25 Kg 7/10, 9/10	Term/AGA /mild RD	mild RD	4th PND

19	Mahrswari	21	P	17.02.06	R	8.7	41+4	-		C		1	b 3 Kg 8/10, 9/10			
20	Tamil Selvi	28	P	25.02.06	-	-	40+3	-		C		1	g 3.7 Kg 7/10, 8/10			
21	Sunitha	27	P	26.02.06	-	-	40+5	-		C		1	g 2.5 Kg 8/10, 9/10			
22	Durga	18	P	11.02.06	R	-	41+3	1 Dose	2hrs	Thick MSL	FD	2	b 3 Kg 7/10, 8/10	RD	RD	5th PND
23	Mahalaxmi	22	P	24.02.06	-	-	40+1	-		C		3	b 3.4, 5/10, 7/10	RD	RD	3rd PND
24	Devi	23	P	21.03.06	R	10	40+2	-		Thin MSL		1	g 2.5 7/10, 8/10			
25	Shanthi	27	P	21.03.06	R	-	41+4	-		Thin MSL		1	b 2.9 7/10, 8/10			
26	Nirmala	23	P	14.03.06	R-NR	9	40+3	-		Thin MSL	FAS	2	b 2.95 6/10, 7/10	RD		
27	Indira	20	P	02.03.06	R	9	41 W	1	3days	C		1	b 2.5, 6/10, 8/10			
28	Ammu	18	P	07.03.06	R	5	41+2	1	5 hrs	C		1	g 2.7 7/10, 9/10			
29	Nisha	21	P	02.03.06	R-NR	11.3	41+1	1	18hrs	C	FAS	2	g 3.2 7/10, 8/10			
30	Jothi	21	P	03.03.06	R-NR	8.2	41+1	1	7 hrs	Thick MSL	FD	2	b 2.75 Kg 7/10, 8/10	RD/TTN	TTN	2nd PND
31	Pushpa Kumari	24	P	06.03.06	R	8.1	41+3	-		Thin MSL	FD	2	g 3.2 Kg 7/10, 8/10			
32	Manjula	28	P	22.04.06	R	10	41+1	-		C		1	b 3 Kg 7/10, 8/10			
33	Indumathy	22	P	30.04.06	R	10	40+6	-		C		1	b 2.8 Kg 7/10, 8/10			
34	Dabymary	25	P	25.04.06	R	8.9	40+5	1	17hrs	moderate NSL	FD	2	gril 3, 7/10,8/10			
35	Lakshmi	19	P	30.04.05	R	9.2	40+2	-		C		1	g 2.75Kg 3/10, 5/10, 7/10	RD		8th PND
36	Megala	22	P	28.04.06	R	11.5	40+1	1	24 hrs	C	CPD	2	b 3.1Kg 7/10, 8/10			
37	Bhuvaneswari	24	P	03.04.06	R	8.8	41	-		thick msl	FD	2	g l3.45, 4/10, 6/10,7/10	Perinatal hypoxia	MAS	15th PND
38	Thenmozhi	19	P	25.04.06	R	12	40+3	-		C		1	g 3.2 8/10,9/10			
39	Ayisha	20	P	11.04.06	R	8.9	41+4	1	17 hrs	Thin MSL	FA	2	g 3.25Kg,7/10,9/10			
40	Jayashree	27	P	12.04.06	R		41	-			FD	2	b 3.7Kg 8/10, 9/10			
41	Parimala	20	P	20.05.06	R	10	41+1	1	11 hrs	C		1	g 2.5, 8/10, 9/10			
42	Sumithra	23	P	19.05.06	R	9.2	40+	-		C		1	g 2.5, 7/10, 8/10			
43	Revathi	22	P	12.05.06	R	8.9	40+6	-		C	FD	2	b 3.5, 8/10, 9/10			
44	Ramayee	21	P	11.05.06	R	-	41+2	-		C		1	g 2.25Kg, 7/10, 8/10			

45	Lakshmi	20	P	17.05.06	R	9.4	40+4	2 doses 12 hrs apart	27 hrs	C	FI	2	g 2.85Kg 7/10, 8/10			
46	Yogalaxmi	20	P	01.05.06	R	9.1	41	-		C		1	b 3Kg, 7/10, 8/10			
47	Bhavani	21	P	03.05.06	R	6.9	40+2	1	10.3 hrs	C		1	b 2.1 Kg, 7/10, 8/10			
48	Sugana	21	P	03.05.06		5.2	40+2	2, 6hrs	11.3 hrs	thin MSL		1	b 2.2 5/10, 6/10			
49	Amudavalli	20	P	05.05.06	R	9.7	40+3	-		C		1	g 2.3, 7/10, 9/10			
50	Latha	23	P	2.05.06	R	9	40+4	-		C		1	g 3.4 7/10, 9/10			
51	Sheela	29	P	12.05.06	R	9.3	41	-		C		4	g 3 Kg, 7/10, 8/10			
52	Mubina	22	P	14.05.06		-	40+5D	-		C		3	g 3.25Kg, 7/10, 9/10			
53	Janaki	21	P	05.05.06	R	9	41	-		C		1	b 3 Kg 5/10,7/10	RD	4th PND	
54	Kalaimagal	26	P	10.05.06	R	8	41	2, 2hrs		C		1	b 2.5Kg, 8/10, 9/10			
55	Karthiga	22	P	14.05.06	R	10.1	41	-		C		1	b 2.9 Kg, 8/10, 9/10			
56	Fathima	28	P	12,05.06	R	9	41+1	-		Thick MSL	CPD/FD	2	b .25Kg, 5/10, 6/10	RD/ Vigorous baby / ? MAS	7th PND	
57	Elizabath	26	P	17.05.06	R	15	40+6	-		C		1	b 3.3Kg, 8/10, 9/10			
58	Radha	18	P	12.05.06	R	9.1	40+5	-		C	CPD	2	b .1Kg, 8/10, 9/10			
59	Kanchana	21	P	17.05.06	R	8.8	41	-		Thin MSL		1	g 2.75Kg, 8/10, 9/10			
60	Manjula	24	P	10.05.06	R	9	41	-		C	CPD	2	b .25Kg, 7/10, 8/10			
61	Amsa	24	P	08.06.06	R	9.3	41+5	2d,6hrs	15 hrs	C		1	g 2.75Kg, 8/10, 9/10			
62	Rajeswari	25	P	10.06.06	-	-	41+1	1d	13 hrs	C		1	b 2.5Kg, 7/10,9/10			
63	Indumathy	20	P	15.06.06	R	9.7	41	1	17 hrs	C		1	g 2.5Kg, 7/10, 8/10			
64	Bhuvaneswari	21	P	20.06.06	R	8.7	41+2	1	10.3 hrs	Thick MSL	FD	2	g 2.5Kg, 7/10, 8/10			
65	Jayashree	27	P	15.06.06	NR	6	41+6	-		Thick MSL	FD	2	b .7Kg, 8/10, 9/10			
66	Jayanthi	30	P	24.06.06	R	9.8	40+5	1	26.3 hrs	C		1	g 2.3Kg, 7/10, 8/10			
67	Sripriya	22	P	27.06.06	R	9.5	41	2 hrs	15 hrs	C		1	g 2.7Kg, 7/10, 8/10			
68	Devi	20	P	16.06.05	-	-	40+6	-		C		1	g 2.5Kg 7/10, 9/10			
69	Sudha	20	P	11.07.06	R	-	41	1	24hrs	C	FI	2	b 3.9Kg 8/10, 9/10			
70	Kaveri	23	P	05.07.06	R	-	41	1	23hrs	C		1	g 2.7, 7/10, 8/10			

71	Menaka	20	P	11.07.06	R	-	41+1	1	11 hrs	C		1	b 2.6, 7/10, 8/10			
72	Seetha	20	P	18.07.06	R	-	41+3	1	12 hrs	C		1	b 2.95, 7/10, 9/10			
73	Selvi	20	P	15.07.06	R	-	41+2	1	18 hrs	C		1	b 2.6, 7/10, 8/10			
74	Sudha	21	P	12.07.06	-	-	41+4	-		C		1	b 2.6, 7/10, 8/10			
75	Thulasi	23	P	13.07.06	-	-	41W	-		C		1	b 2.5, 7/10, 8/10			
76	Shobana	21	P	24.07.06	-	-	41W	-		C		1	g 3.5, 7/10, 9/10			
77	Jothi	19	P	22.07.06	-	-	41+3	-		C		1	g 2.75, 7/10, 9/10			
78	Surya	19	P	26.07.06	-	-	40+2	1		C	FA	2	b 3.25, 7/10, 8/10			
79	Sunita Devi	24	P	29.07.06	-	-	40+2	-		C	FD	2	g 3Kg, 8/10, 9/10			
80	Lavanya	18	P	27.07.06	-	-	40+5	-		C		1	b 3.4 , 7/10, 9/10			
81	Kalpana	21	P	08.08.06	-	-	40+3	-		C		1	g 2.5, 7/10, 8/10			
82	Yasoda	22	P	25.08.06	-	-	40+4	-		C		1	g 2,5, 7/10, 8/10			
83	Suguna	19	P	18.08.06	-	-	40+2	-		C		1	b 2.5, 8/10, 9/10			
84	Selvi	19	P	20.08.06	-	-	40+6	-		thickMSAF		1	g 2.75, 4/10, 7/10	thick MSAF/? MAS	10th PND	
85	Bharathy	30	P	13.08.06	NR	6.7	41+1	-		thickMSAF	FD	2	g 2.9, 6/10, 8/10			
86	Eswari	24	P	22.08.06	R	9.5	40+2	-		Thin MSL		1	b 2.3, 6/10, 7/10			
87	Devi	21	P	28.08.06	R	9	40+4	-		C		1	g 3.2, 7/10, 8/10			
88	Kumari	28	P	27.08.06	NR	8.9	41+5	-		C	FD	2	b 3 Kg, 7/10, 8/10			
89	Geetha	23	P	31.08.06	R	9.5	41+2	-		Mod	FD	2	g 3.5 Kg, 7/10, 8/10			
90	Mohanalakshmi	20	P	30.08.06	-	-	40+4	-		C		1	b 2.6, 7/10, 8/10			
91	Kalpana	29	P	16.02.06	R	9	40+2	1		C		1	g 3, 7/10, 8/10			
92	Selvi	22	P	27.02.06	R	8.7	41+3	1		C	FAS	2	g 3.2, 7/10, 8/10			
93	Jayalakshmi	21	P	17.02.06	R	-	40+3	-		C	FA	2	g 2.7, 7/10, 8/10			
94	Vijaya	26	P	25.02.06	R	-	41	1		C		1	g 2.75, 4/10, 7/10			
95	Rajabneeba	22	P	26.02.06	R	9.5	40+2	1		C		1	g 3, 7/10, 8/10			
96	Revathy	28	P	11.02.06	R	-	41+6	1		C		1	g 2.75, 4/10, 7/10			
97	Banumathy	26	P	24.02.06	R	9.3	41	1		C	FD	2	g 2.9, 6/10, 8/10			
98	Mary Shoba	18	P	21.03.06	R	-	41+2	-		C		1	g 2.75, 4/10, 7/10			
99	Menaka	21	P	21.03.06	R	-	41+3	-		C	FAS	2	b 2.6, 7/10, 8/10			

100	Jancy	24	P	14.03.06	R	9.7	40+3	1	7hrs	C		1	g 2.6, 7/10, 8/10			
101	Vijayakumari	23	P	02.03.06	-		41W	-		C		1	g 3.5, 7/10, 8/10			
102	Valli	19	P	07.03.06	R	9	40+6	-		C		1	b 2.55, 7/10, 8/10			
103	Saridha	21	P	28.08.06	R	7.9	41+3	-		Thin MSL	FD	2	b 3.25, 6/10, 7/10	RD	3rd PND	
104	Lakshmi	20	P	22.09.06	R	10	40+5	1	19hrs	C	FA	2	b 3.5, 6/10, 7/10			
105	Sumathy	19	P	25.09.06	R	11	41W	-		Mod. MSL	FD	2	b 3.25, 6/10, 8/10			
106	Kantha	23	P	25.09.06	R	10	40+3	-		C		1	g 2.75, 3/10, 9/10			
107	Prabhavathy	24	P	23.09.06	R	7	41+3	-		C		1	b 3.25 Kg, 7/10, 8/10			
108	Kalpana	21	P	17.10.06	-	7	41W	-		C		1	g 2.8, 7/10, 9/10			
109	Jeya	22	P	25.09.06	R	8.7	41+2	-		C		1	g 3.5 , 7/10, 8/10			
110	Sasikala	23	P	17.09.06	R	9.2	41+3	-		C	FD	2	g 3.3, 7/10, 8/10			
111	Rajeswari	27	P	17.09.06	R	10.3	40+2	1	3 days	Thin MSL	FD	2	b 3.5 , 7/10, 8/10			
112	Mahaneshwari	21	P	02.10.06	-	9	40+1	-		C		1	g 2.75, 7/10, 8/10			
113	Gomathi	22	P	29.09.06	R	9	40+1	-		C		1	b 2.75 Kg, 7/10, 9/10			
114	Mary Shoba	23	P	21.09.06	-	11.2	41	-		C		1	b 3.3 , 7/10, 9/10			
115	Jacqueline	31	P	25.08.06	-	10	42W	-		Thick MSL	FD	2	g 2.8 7/10, 8/10			
116	Sahaya Mary	23	P	30.09.06	R	10.1	40+2	-		Thin MSL		1	g 3 Kg, 7/10, 8/10			
117	Revathy	20	P	29.09.06	R	7.8	40+1	-		Thick MSL	FD	2	b 3.1Kg,2/10,6/10, 7/10	RD	5th PND	
118	Anjali	20	P	27.08.06	R	9.3	42W	-		C		1	g 2.75Kg , 7/10, 8/10			
119	Indhra	20	P	02.03.06	R	9	40+5	1	2days 4hrs	C		1	b 2.5, 6/10, 8/10			
120	Santhi	25	P	06.03.06	R- NR	5.6	40+6	-		Thin MSL	FD	2	b 3Kg, 7/10, 9/10			
121	Kalpana	20	P	17.10.06	-	8.1	41W	-		C		1	b 2.7, 8/10, 9/10			
122	Selvi	27	P	17.10.06	-	9	41W	-		C		1	g 2.8, 7/10, 8/10			
123	Jayalakshmi	23	P	17.10.06	-	9	41W	-		Thin MSL		1	b 2.6, 8/10, 9/10			
124	Vijaya	26	P	15.10.06	-	6.2	40+2	-				1	g 3.25Kg, 7/10, 8/10			
125	Rajabneeba	25	P	22.10.06	R	11.7	41W	-		C	DTA	2	b 3.25, 8/10, 9/10			
126	Revathy	26	P	22.10.06	R	7.4	41W	2 dose 12	2 day	C	FI	2	g 2.55, 7/10, 8/10			
127	Banumathy	20	P	20.05.06	R	-	41+2	1	12hrs	C	FD	2	g,3.6, 7/10, 8/10			

128	Mary Shoba	21	M	11.05.06	R	-	41+3	1	14 hrs	C		1	g 2.7, 6/10, 7/10			
129	Govindammal	25	P	27.05.06	R	-	41+6	-		C	Severe oligo	2	g 3.75, 7/10, 8/10			
130	Dimple	23	P	17.05.06	R	-	40+6	1	16.45 hrs	C	FD	2	g 3.25, 7/10, 8/10			
131	Jayamani	25	M	19.05.06	R	-	41	-		C		1	g 2.5, 8/10, 9/10			
132	Saraswathi	26	P	08.05.06	R	-	41+6	-		C		2	b 2.85, 8/10, 9/10			
133	Sangeetha	22	P	12.05.05	R	-	41+2	-		C	CPD	2	g 2.6, 8/10, 9/10			
134	Sarala	19	P	01.06.06	R	-	41+4	2does12hr	23hrs	Mod		1	b 2.5 7/10, 8/10	RD	4th PND	
135	Jayanthi	21	P	22.06.06	R	-	41+3	-		C	FD	2	g 3.6, 7/10, 8/10			
136	Sudha	21	M	11.06.06	R	-	40+5	1	14	C		1	g 2.9, 7/10, 8/10			
137	Anusuya	21	P	20.06.06	R	-	40+6	-	12	C	FD	2	g 2.75, 7/10, 8/10			
138	Saraswathi	27	P	17.06.06	R	-	41+2	1	5 hrs	Thin	FD	2	b 2.8, 6/10, 7/10	RD	4th PND	
139	Gomathi	29	P	20.06.06	R	-	40+6	1	14 hrs	C	FD	2	b 2.5, 7/10, 8/10			
140	Anita Devi	20	M	29.06.06	R	-	41+1	1	13.25 hrs	C		1	b 2.75, 7/10, 8/10			
141	Chitra	22	M	29.06.06	R	-	41+6	1	8.15 hrs	Thin MSL	FD	2	g 3.1, 7/10, 8/10			
142	Panthra	24	P	08.06.06	R	-	41+1	1	26 hrs	thick		1	g 2.55, 5/10, 7/10	RD	5th PND	
143	Amul	22	P	22.06.06	R	-	40+5	1	18.4 hrs	C	FD	2	g 3, 7/10, 9/10			
144	Indhra	22	M	28.06.06	R	-	41+5	1	4 hrs	C		1	g 3.25, 7/10, 9/10			
145	Revathy	19	P	21.06.06	R	-	41+3	1	29 hrs	C		1	b 2.9, 7/10, 8/10			
146	Nagarani	20	P	05.07.06	R	-	40+5	1	21 hrs	C	CPDI	2	b 3.5, 7/10, 8/10			
147	Lakshmi	18	M	03.07.06	R	-	40+4	1	10.5 hrs	C		1	g 2.8, 8/10, 9/10			
148	Umamahrswari	23	P	30.06.06	R	-	40+6	1	25 hrs	C	CPDI/FD	2	g 3.2, 6/10, 7/10			
149	Sumati	22	M	08.06,06	R	-	41+1	-		C	FAS	2	b 3.2, 7,8			
150	Parvathi	25	P	08.06.06	R	-	40+2	1	24 hrs	C	FD	2	b, 2.7, 6,7			
151	Sumathy	28	M	10.06.06	R	-	40+3	1	20.3 hrs	C	FAS	2	b 3.75, 6,8			
152	Kavitha	23	P	12.06.06	R	-	41	-		Mod	FD	2	b 2.1, 6,7			
153	Rajeswari	19	P	10.06.06	R	-	41+5	1	19 hrs	C	FAS	2	g 2.75, 6,9	RD	4th PND	
154	Bharathi	25	M	27.06.06	R	-	41+3	1	18.3 hrs	C		1	b, 2.75,7,9			
155	Mary	30	M	22.06.06	R	-	41+5	1	7hrs			1	g,2.75, 6,8			
156	Ammu	29	M	18.06.06	R	-	41+5	1	6.15 hrs	C		1	g 2,5, 6,8			

157	Anitha	29	P	22.06.06	R	-	41	1	1 hr	C	FD	2	b, 2.4, 7,8			
158	Mariammal	23	P	17.06.06	R	-	41	1	17.45 hrs	C		1	g, 3, 7,9			
159	Parimala	22	P	12.07.06	R	-	41+5			C	severe ollgo	2	g, 2.5, 5,8	RD		
160	Vasanthi	20	P	22.07.06	R	-	41	1	10hrs	Mod	FD	2	b 2.5, 7,9			
161	Rajeswari	20	P	15.07.06	R	-	41+4	-		thin	FA	2	g 2.75, 7,9			
162	Leelavathy	22	M	24.07.06	R	-	40+5	1	13 hrs	C	FD	2	b, 2.9, 7,8			
163	Chitra	23	P	16.07.06	R	-	40+6	1	20hrs	C	CPD	2	g, 2.75, 8,9			
164	Kalpana	23	P	26.07.06	R	-	41	1	22 hrs	thin	CPD	2	b, 3.25,8,9			
165	Kavitha	24	M	27.07.06	R	-	40+5	-		thin	FAS	2	b, 3.5, 7,9			
166	Mahrswari	28	M	31.07.06	R	-	41	1	12 hrs	C	FD	2	b 2.75, 8,9			
167	Nalini	30	P	28.07.06	R	-	41	1	12.3 hrs	C	CPD	2	b 3.2, 7,9			
168	usha	21	P	13.07.06	R	-	41	1	10 hrs	C	FD	2	b 3.2, 7,9			
169	Sri Devi	20	P	20.07.06	R	-	41	1	20	C		1	g, 2.25, 7,8			
170	Savitha	24	P	06.08.06	R	-	41	1	9 hrs	C	FAS	2	g 3.1, 7,8			
171	Nisha	21	P	19.07.06	R	-	41	1	173. hrs	C	FAS	1	g 3.2, 7,8			
172	Kumari	23	P	25.07.06	R	-	40+6	1	18.15 hrs	C	FD	2	g,2.9, 7,8			
173	Geetha	23	M	11.07.06	R	-	41	1	10 hrs	C		1	b, 2.8, 7,8			
174	Jothi	21	P	21.07.06	R	-	41+5	-		C	FD	2	b 2.75, 7,8			
175	Kavitha	19	P	28.07.06	R	-	41	-		Thin MSL	CPD/FD	2	b, 3, 7,8	RD		
176	Rajeswari	20	P	20.07.06	R	-	41+1	1	15.3 hrs	C	FD	2	g 3.5, 7,8			
177	Rani	22	M	01.08.06	R	-	41+1	1	7 hrs	C		1	g, .1, 8,9			
178	Sheebakala	18	P	30.07.06	R	-	41+3	1	6.15hrs	C		1	g, 3, 8,9			
179	Sampangi	30	M	28.07.06	R	-	41	1	48 hrs	Mod Msl		1	b 1.8, 2/10, 5/10,7/10	IUGR	14th PND	
180	Pushpa	30	M	18.07.06	R	-	41+2	1	8 hrs	C		1	b, 3.1 8/10, 9/10			
181	Santha	25	P	18.07.06	R	-	41+4	1	28 hrs	thin		3	g 2.4, 7/10, 8/10			
182	Valli	21	M	10.07.06	R	-	41+1	1	10 hrs	C		1	g, 3, 8/10, 9/10			
183	Rajeswari	25	P	08.07.06	R	-	41+2	1	18.45 hrs	C		1	g, 2.75, 8/10, 9/10			
184	Malathi	22	P	12.07.06	R	-	41	1	19 hrs	C		1	g, 3.5, 7/10, 8/10			
185	Jancy	21	M	13.07.06	R	-	41	1	5 hrs	C		1	g, 2.8, 7,8			

186	Ammu	19	P	18.07.06	R	-	41	1	6 hrs	C		1	g, 3, 8,9			
187	Sabbunisha	25	P	18.07.06	R	-	41	1	8.3 hrs	C	FD	2	g, 3, 7,9			
188	Suhasini	23	M	25.07.06	R	-	41	2, 12 hrs	32 hrs	C	FI	2	g, 2.7, 7/10, 9/10			
189	Pushpa	26	P	27.07.06	R	-	41	1	11 hrs	C	FD	2	b, 3.2 7/10,8/10			
190	Priya	26	M	27.07.06	R	-	41	1	24.3 hrs	C	FD	2	b3, 7/10, 8/10			
191	Shanthi	25	M	27.07.06	R	-	41	1	5.5 hrs	C		1	b, 3, 7/10, 8/10			
192	Anitha Devi	25	P	22.07.06	R	-	41	-	23.3 hrs	C	FI	2	b 3 7/10, 8/10			
193	Rosaline	26	P	04.08.06	R	-	41	-		Thin	FD	2	g, 3.75, 7/10, 8/10			
194	Jayanthi	24	P	16.07.06	R	-	41	-	48 hrs	Thin	CPD/FA	2	b, 3.65, 7/10, 9/10			
196	Geetha	20	P	24.07.06	R	-	41	1	11 hrs	Thin		1	b, 2,7, 7/10, 8/10			
197	Marthammal	21	M	15.11.06	R	-	40+1	-		Thin		1	b, 2.9, 7/10, 8/10			
198	Selvi	24	M	14.11.06	R	-	40+5	-		Thin MSL	FD	2	g, 2.6, 6/10, 7/10	RD/ ? MAS	3rd PND	
199	Vimala	29	M	12.11.06	R	4.6	41+2	1	20 hrs	C	Oligo/FI	2	g 2.9, 7/10, 8/10			
200	Glori	29	M	22.11.06	R	-	40+2	-		C		1	b, 3.1, 7/10, 8/10			
201	Durga	33	M	22.11.06	R	-	40+5	-		C		1	b, 3.25, 7/10, 8/10			
202	Nalini	24	P	17.11.06	R	-	41	1	14 hrs	C	FD	2	b, 3, 7/10, 8/10			
203	Geetha	21	P	17.11.06	R	-	41	-		Thin MSL	FD	2	b 3, 7/10, 8/10			
204	Bhuvaneswari	22	M	19.11.06	R	<5	40+5	1	6.3 hrs	Thick MSL	FD	2	g, 3.2, 6/10, 7/10	RD		
205	Revathi	30	P	21.11.06	R	8=4	40+5	1	20 hrs	Thin MSL	FD	2	g, 2.3 , 5/10, 6/10			
206	Alamelu	27	P	28.11.06	R	9.5	41	1	13 hrs	c		1	b, 3, 7/10, 8/10	RD		
207	Devi	20	P	27.11.06	R	9	41	1	15 hrs	c		1	g, 3.25, 7/10, 8/10			
208	Revathy	20	P	21.11.06	R	11.2	41	1	20 hrs	c		1	b, 3.1, 7/10, 8/10			
209	Tamil Selvi	25	M	27.11.06	R	-	40+2	-		c		1	g, 3.1, 7/10, 8/10			
210	Dillibai	20	P	25.12.06	R	-	40+4	-		c		1	g 2.25, 7/10, 8/10			
211	Lalitha	22	M	22.11.06	R	9.3	41	1	12 hrs	c		1	g 3kg ,7/10, 8/10			
212	Manjula	27	P	20.11.06	R	9.1	41	1	20 hrs	Thick MSL	FD	2	b 3.2, 6/10, 7/10	RD		
213	Jayalakshmi	21	M	14.11.06	-	-	41	1		Thick MSL	FD	2	g, 3.1, 5/10, 6/10	RD		
214	Ramani	22	P	16.11.06	R	8.5	41	1	15 hrs	Thin MSL		1	g,2.75,7/10, 8/10			
215	Yogalaxmi	23	P	25.11.06	R	9	41+5D	2,12hrs	48 hrs	c		1	b,3.3, 6/10, 8/10			

216	Kavitha Devi	22	P	04.12.06	R	9.5	40+5	1	16 hrs	c		1	g,3,7/10, 8/10			
217	Devi	28	M	04.12.06	R	9.2	41	1	24 hrs	c		1	g,3.1, 7/10, 8/10			
218	Kalaivani	22	M	05.12.06	R	9.9	41	1	26hrs	C		1	g,2.8,7/10, 8/10			
219	Sumathy	22	P	08,.12.06	-	4.2	40+6	-		Thick MSL	oligo / FAS	2	2.15kg, g. 6/10, 7/10	IUGR	11th PND	
220	Saraswathi	26	M	13.12.06	R	11.3	41	1	23 hrs	Thin MSL		1	b 3.1, 7/10, 8/10			
221	Shakila	29	M	15.12.06	R	12.5	41	1	18 hrs	c		1	b, 3, 6/10, 7/10			
222	Devi Kumari	25	P	10.12.06	R	5	40+4	1	18.3 hrs	c		1	g 2.75, 7/10, 8/10			
223	Uma	25	P	03.12.06	R	10.3	41+2	1	22 hrs	c		1	b 2.25, 7/10, 8/10			
224	Vijaya	24	M	17.12.06	R	9.7	40+5	1	12 hrs	Thin MSL	FD	2	b, 3, 7/10, 8/10			
225	Sudha	21	P	04.12.06	R	10.2	40+2	-		c		1	g 3.1, 6/10, 7/10			
226	Charumathy	30	M	15.12.06	R	9	41+1	2,12 hrs	19 hrs	c	POP / FD	2	g 2.6, 7/10, 8/10			
227	Chellathai	24	P	11.12.06	-	11	40+5	-		c		1	b 3, 7/10, 8/10			
228	Bhavani	20	P	07.12.06	-	9.8	41	-		c		1	g, 2.8, 7/10, 8/10			
229	Laxmimurthy	20	M	13.12.06	-	11.2	40+	-		Thin MSL		1	g, 3.25, 7/10, 8/10			
230	Geetha	26	M	16.12.06	R	10.6	41+5	2,12	20hrs	Thin MSL		1	b 3.5, 6/10, 7/10			
231	Rathna	24	P	14.12.06	-	8.8	41+2	-		Thick MSL		1	b 3.2, 4/10, 6/10	Perinatal hypoxia	11th PND	
232	Sophiya	26	P	15.12.06	R	9.3	41+1	1	18	c		1	g, 2.6, 7/10, 8/10			
233	Mala	23	M	07.03.06	R	9.5	41+5	-		c		1	b 3 8/10,9/10			
234	Helan Doss	24	M	20.03.06	R	9.9	40+6			c		1	b 2.55, 8/10, 9/10			
235	Muniammal	24	M	23.02.06	R	7.9	41	1	18	thin		1	g 2.75, 8/10, 9/10			
236	Sasikala	28	M	09.02.06	-	11.2	41	1	23	c		1	g 3, 8/10, 9/10			
237	Poonguzhali	24	M	21.02.06	-	9.3	41+2	2,12	26	thin		1	g 2.75, 7,9			
238	Adhilakshmi	22	M	01.03.06	R	8.7	41+3	1	16	c		1	g 2.75, 6/8/10			
239	Maragatham	21	M	27.02.06	R	10.9	41+6	1	15	c		1	b2, 6/10, 8/10			
240	Shanthi	25	M	22.02.06	R	9.7	40+5	1	15	c		1	b 3.5, 7/10, 8/10			
241	Savitha	21	M	21.02.06	R	8.7	41+3	1	5 hrs	Thick MSL	FD	2	b 3, 7/10, 8/10	RD		
242	Uma	24	M	11.02.06	-	-	41+3	1	23	c		1	b 2.7, 7/10, 8/10			
243	Mariammal	28	M	19.02.06	R	9.1	41	1	8 hrs	thin		1	g 2.25, 7/10, 8/10			
244	Nagammal	30	M	03.03.06	-	8.9	41+4	1		thin		1	b 2.75, 7/10, 8/10			

245	Indhra	25	M	05.12.06	-	-	40+6	-		C	FD	2	b 2.6, 8/10, 9/10			
246	Revathy	21	M	17.12.06	R	-	40+5	-		C		1	b 3.7, 7/10, 8/10			
247	Sudha	21	P	20.12.06	R	-	41+1	-		thin		1	b 2.6, 7/10, 8/10			
248	Selvi	32	M	20.12.06	R	-	40+1	-		C		1	g 2.3, 7/10, 8/10			
249	Mahrswari	23	M	19.12.06	-	-	40+3	-		C		1	b 3.3, 7/10, 8/10			
250	Surya	22	M	15.12.06	-	-	40+1	-		C		1	b 2.5, 8/10, 7/10			
251	Tharani	23	P	15.12.06	R	9.1	41	-	19.3 hrs	C		1	b 2.5, 7/10, 8/10			
252	Baeleau	22	M	12.12.06	R	-	41	-		C		1	b 2,5, 7/10, 8/10			
253	Gayathri	21	M	17.12.06	R	-	40+2	-		C		1	b 2,5, 7/10, 8/10			
254	Shanthi	28	M	12.12.06	R	-	40+2	-		Thick MSL	FD	2	b 2.75,6/10,7/10	RD	4th PND	
255	Jayalakshmi	31	M	08.12.06	R	9	40+4	-		C		1	g 3, 8/10, 9/10			
256	Sunitha Devi	24	M	08.12.06	R	9.5	40+5	-		C		1	g 3, 8/10, 9/10			
257	Saraswathi	26	M	03.12.06	R	9.2	40+4	-		C		1	b 3.6, 6/10, 7/10			
258	Padmavathy	28	M	08.12.06	R	8.8	41+2	-		C		1	g 2.7, 7/10, 8/10			
259	Kalpana	21	M	12.12.06	R	9.1	40+5	-		C		1	b 2,5, 8/10,9/10			
260	Lalitha Kumari	23	M	14.12.06	R	8.7	40+3	-		C		1	g 2.5 7/10, 8/10			
261	Mala	26	M	04.12.06	R	-	41+1	1	20 hrs	C		1	g 2.9, 7/10, 8/10			
262	Megala	23	M	04.12.06	R	9.1	41+6	1	14 hrs	Thin MSL		1	b 2.1, 6/10, 7/10	RD		
263	Shanwaz	22	M	14.12.06	-	-	40+6	-		C		1	6 3.2, 7/10, 8/10			
264	Muthulakshmi	20	M	13.12.06	-	-	40+4	-		C		1	b3, 6/10, 7/10			
265	Vaidehi	42	M	17.12.06	-	-	41	1		Thick		1	g 2.6, 7/10, 8/10			
266	Kavitha	25	M	17.12.06	R	-	40+6	-		C		1	b 2.5, 8/10, 9/10			
267	Vijaya	26	M	10.12.06	-	-	40+2	-		C		1	g 3.1, 7/10, 8/10			
268	Selvi	19	P	11.12.06	-	-	40+5	-		Thick MSL		1	g 2.75 4/10, 7/10	Perinatal hypoxia	9th PND	
269	Kumudha	28	P	10.12.06	-	-	40+2	-		C	FD	2	b,3, 7/10, 9/10			
270	Ammu	24	M	12.12.06	-	-	40+6	-		C		1	g 3.5, 7/10, 8/10			
271	Saritha	23	P	14.12.06	R	-	40+3	1	15 hrs	C		1	b3, 7/10, 8/10			
272	Shenbagarathi	24	M	08.12.06	R	-	40+5	-		C		1	g 2.8 7/10, 8/10			
273	Ilavarasi	20	M	05.12.06	R	-	41+1	1	18 hrs	Thin MSL	FD	2	g 3.3 8/10, 9/10			

274	Geetha	23	M	18.12.06	R	-	41+5	-		Thin MSL	FA	2	g, 3.5, 6/10, 7/10			
275	Mohana	20	M	16.12.06	R	-	40+4	-		C		1	b 2.6, 7/10, 9/10			
276	Jayashree	22	M	17.12.06	R	-	40+3	-		C		1	g, 3, 7/10, 8/10			
277	Bharathy	20	P	10.12.06	-	-	41+1	-		Thin MSL	FAS	2	g 2.9, 6/10, 8/10			
278	Mahadevi	20	P	02.12.06	-	4	41+4	-		C	oligo /CPD	2	g 2.8, 5/10, 6/10	Mild RD		
279	Pamhavarnam	28	M	14.12.06	-	-	41	-		Mod MSL	FD	2	g 3.75, 7/10, 9/10			
280	Chitra	28	P	24.12.06	-	-	41+3	-		C	oligo /CPD	2	g 3.1, 7/10, 8/10			
281	Sumathy	21	M	25.12.06	-	-	40+6	-		C	CPD	2	b 3.25, 6/10, 7/10			
282	Kirshnaveni	21	M	05.12.06	-	-	40+1	-		C	FD	2	g,3.25, 8/10, 9/10			
283	Mahrswari	23	P	21.12.06	-	-	40+6	-		C		1	b,3,7/10, 8/10			
284	Muthamilselvi	21	M	17.12.06	-	-	40+1	-		C	FD	2	b 2.75, 7/10, 8/10			
285	Krishnaveni	25	P	14.12.06	-	-	40+6	-		C	CPD	2	b,3, 7/10, 8/10			
286	Eswari	24	P	25.12.06	-	-	40+2	-		Thin MSL		1	b,2.3, 7/10, 8/10			
287	Devi	21	M	27.01.06	-	-	40+4	-		C		1	g,3.2 7/10, 8/10			
288	Annalakshmi	30	M	27.01.06	-	-	40+5	-		C		1	g,3,25, 7/10, 9/10			
289	Lakshmi	30	M	10.01.06	-	-	40+3	-		C		1	b,3.7, 3/10, 5/10	RD		
290	Yuvarani	24	M	18.01.06	-	9.5	40+6	-		C	FA	2	g, 2.8 7/10, 8/10			
291	Devi Hema	27	M	20.01.06	-	-	41+1	-	12	thickMSL	FD	2	g 3.5, 7/10, 8/10			
292	Menaga	22	M	17.01.06	-	-	40+5	1		C	BOH / CPD	2	g 2.9, 7/10, 8/10			
293	Praveena	24	M	25.01.06	-	4	40+3	-		thickMSL	severe oligo	2	g 2.4, 5/10, 6/10	RD		
294	Manjula	25	M	27.01.06	-	-	40+2	-		C		1	g 3, 7/10, 9/10			
295	Sharmila	19	P	27.01.06	-	-	40+4	-		c		1	b 2.75, 7/10, 8/10	TTN	4th PND	
296	Vannila	21	M	28.01.06	R	-	41+2	-	11 hrs	Thin MSL		1	g, 1.8, 8/10, 9/10	IUGR	3rd PND	
297	Mary	25	P	27.01.06	-	-	41+4	1		C		1	b, 1.75, 7/10, 8/10	IUGR	2nd PND	
298	lakshmi	23	P	26.01.06	-	-	41+1	-		C		1	b,2.5, 7/10, 8/10			
299	Selvi Suresh	20	P	27.01.06	-	-	41+3	-		C		1	b3, 7/10, 9/10			
300	Sarala	21	M	20.01.06		-	41+1	-		C	CPD	2	b 3.25, 8/10, 9/10			
301	Selvi	26	P	22.01.06		-	40+6	-		thick MSL	FD	2	b 3.1, 7/10, 9/10			
302	Sujatha	28	P	26.01.06	R	9.5	40+2	-		Thin MSL	FD	2	g 3.5, 7/10, 8/10			

303	Lakshmi	32	M	24.01.06	R	9.1	40+4	-		C	CPD	2	b 2.75, 7/10, 9/10			
304	Bhuvaneswari	28	M	23.01.06	R	-	41	-		C		1	g 2.8, 8/10, 9/10			
305	Gandhimathi	18	P	28.01.06	R	9.5	40+5	-		C		1	b2.3, 6/10, 8/10	Perinatal hypoxia	5th PND	
306	Kuppu	35	M	22.01.06	R	-	42	-		C		1	g 3.2, 8/10, 9/10			
307	Renuka Devi	29	P	27.01.06	R	-	40+2	-		C	MP	2	b 3.2, 6/10, 7/10			
308	Aruljothi	22	P	22.01.06	R	9.2	41	-		Thick MSL	FD	2	b, 3.2, 6/10, 8/10	MSAF RD	6th PND	
309	Renuka	30	M	24.01.06	R-	-	40+6	-		c		1	b,3,8/10, 9/10			
310	Uthia	25	M	26.01.06	-	-	41+2	-		c		1	b, 2.6, 7/10, 9/10			
311	Prema	23	M	29.01.06	-	-	40+4	-		c		1	b 3.2, 7/10, 9/10			
312	Mahrswari	29	M	03.02.06	-	-	40+1	-		c		1	b,2.5, 8/10, 9/10			
313	Ilavarasi	20	P	30.01.06	-	-	40+4	-		c		1	g 2.5, 7/10, 9/10			
314	Chitramaya	21	P	02.02.06	R	-	41	1	25 hrs	c		1	g 3, 7/10, 9/10			
315	Komalavalli	20	P	01.03.06	R	-	41+5D	1	13.45 hrs	c		1	g, 2.6, 7/10, 9/10			
316	Indumathy	19	P	03.02.06	R	-	41+1D	1	14.3 hrs	c		1	b, 3, 8/10, 9/10			
317	Lakshmi	25	M	31.01.06	-	-	40+6	-		c		1	g,3, 7/10, 9/10			
318	Sarah	25	P	28.01.06	R	-	40+2	1	15.15 hrs	c	CPD II	2	b 3.2, 8/10, 9/10			
319	Anbuselvi	24	P	25.01.06	R	5	40+4	1	18.3 hrs	Thin MSL	CPD/ oligo	2	b 3.25, 8/10, 9/10			
320	Lalitha	28	M	25.01.06	-	<5	40+4	-		thick MSL	FD	2	b 3.2, 7/10, 8/10			
321	Vijaya	23	M	23.01.06	-	8	40+6	-			FAS	2	g, 3, 7/10, 8/10			
322	Mary	21	M	27.01.06	R	9.5	41+1	1	14 hrs	thin		1	g, 3, 7/10, 9/10			
323	Valli	22	M	21.01.06	-	-	42+1	-		c		1	b 3.1, 7/10, 9/10			
324	Sugumari	29	M	05.02.06	-	-	41+1	-		c		1	g 2.75, 8/10, 9/10			
325	Pachiammal	24	P	16.01.06	R	9.2	41+4	1	4.30 hrs	thin MSL	FD	2	b 2.6, 7/10, 8/10			
326	Rajarajeswari	25	M	25.01.06	-	-	40+6	-		c		2	b 3.9, 7/10, 8/10			
327	Amsa	21	P	02.02.06	-	-	40+4	-		c		2	b, 2.7, 7/10, 9/10			
328	Jansi	21	P	06.01.07	R	-	42	1	24	c	FA	2	b 2.9, 7/10, 9/10			

329	Jayaseeli	20	P	01.02.06	R	-	40+1	-		thick MSL	FD	2	b 3, 7/10, 8/10			
330	Vijayalakshmi	23	M	29.01.06	R	9	40+1	1	12 hrs	c		1	g 3.1, 8/10, 9/10			
331	jeeva	26	M	24.01.06	R	10	41+1	1	12 hrs	C	FD	2	b 2.5, 7/10, 9/10			
332	Tamil Selvi	28	P	25.01.06	R	-	41+1	-		C	CPD	2	b, 3.25, 8/10, 9/10			
333	Girija	25	P	31.01.06	R	-	40+3	-		C	FD	2	b, 2.75, 8/10, 9/10			
334	Amudha	26	M	01.02.06	R	-	41+5	-		C		1	b, 2.25, 7/10, 8/10			
335	Karithika	18	P	03.02.06	-	-	40+4	-		C		1	g 2.8, 7/10, 8/10			
336	Prema	20	M	03.02.06	-	-	41+5	-		C		1	g,2.1, 7/10, 9/10			
337	Pushpalatha	21	P	08.02.06	-	-	41	-		c		1	g, 3.25, 7/10, 8/10			
338	Revathy	21	P	08.02.06	-	-	41+5	-				1	g 3.65, 6/10, 8/10			
339	Sathya	21	P	16.02.06	-	-	40+6	-		c		1	g 3, 7/10, 9/10			
340	Malarkodi	22	P	02.02.06	-	-	40+1	-		c	CPD	2	g 3.1, 7/10, 9/10			
341	Ayyammal	23	M	27.01.06	-	-	41w	-		c	CPD	2	g 3.25 7/10, 8/10			
342	Sangeetha	22	M	21.01.06	-	-	41+4	-		c		1	g 2.75, 7/10, 8/10			
343	Jayashree	27	P	31.01.06	R	6.2	40+3	1	9.30hrs	Thin MSL	CPD/FD	2	b 3.7, 8/10, 9/10			
344	Rathisha	21	M	08.02.06	-	-	40+2	-		c		1	g 2.25,7/10, 9/10			
345	Viji	25	M	10.02.06	-	-	40+4	-		c		1	g2.4, 7/10, 8/10			
346	Shanthi	23	P	01.02.06	R	9.2	40+4	1	24hrs	c	CPD/FI	2	b2.5,7/10. 9/10			
347	Sumalatha	19	M	27.01.06	-	-	41+1	-		C	CPD	2	g3, 7/10, 9/10	RD		
348	Shenkai	28	M	24.01.06	R	10	41+3	1	20hrs	c	CPD/FI	2	b 3.25, 7/10, 9/10			
349	Malarkodi	23	M	06.02.06	-	-	41	1		c		1	b, 3.25, 7/10, 9/10			
350	Govindammal	25	P	25.01.06	-	3.1	41+1	-		c	Severe oligo	2	g, 2.75, 7/10, 9/10			
351	Prabavathy	24	P	04.02.06	-	-	40+2	-		c	CPD/FI	2	g 3.25, 8/10, 9/10			
352	Padmakumari	23	M	01.02.06	-	-	40+5	-		c		1	g 2.7, 7/10, 8/10			
353	Mahrswari	26	M	29.01.06	-	-	41+2	-		Thin MSL	FD	2	g 2.6, 7/10, 8/10			
354	Gayathri	20	P	06.02.06	-	-	40+5	-		c		1	g 2.75, 7/10, 8/10			
355	Muniyammal	21	P	04.02.06	-	-	40+6	-		MSL thi		1	g 2.65, 7/10, 9/10	TTN	2nd PND	
356	Karpagam	23	M	08.01.06	R	9.5	41+2	2 dose 6 hrs	24hrs	thin	FI	2	b 3.5, 8/10, 9/10			
357	Govindammal	35	M	24.01.06	R	8	41+5	-		c		1	g 3, 7/10, 9/10			

358	Suvitha	24	M	20.01.06	R	10	40+6	-		c		1	b 3.6, 7/10, 8/10			
359	Vasanthi	22	M	19.01.06	R	8	40+6	-		Mod MSL		1	g 2.75, 7/10, 9/10			
360	Latha	27	M	13.01.06	R	12	41+2	-		C		1	b 3.5, 7/10, 9/10			
361	Thilagam	21	M	19.01.06	R	7.2	40+2	-		C		1	g 3.6, 6/10, 8/10			
362	Melan	22	M	17.01.06	R	8	41+2	-		C		1	b 3.5, 6/10, 9/10			
363	Kirupa	25	M	22.01.06	R-NR	71- 6.1	41W	1	8.15 hrs	C	FD	2	g 2.6, 7/10, 9/10			
364	Renuka	26	M	17.12.06	R	8	42W	-		C		1	b 3.75, 8/10, 9/10			
365	Kowsiya	21	M	24.12.06	R	9	41+1	-		thin		1	b3, 6/10, 8/10			
366	Girija	22	M	30.12.06		8	40+2	-		C		1	g 2.7, 6/10, 8/10			
367	Mukammal	25	M	26.12.06	R	8	40+6	-		C		1	g 3.1, 7/10, 8/10			
368	Rameswari	26	P	27.12.06	R	7	41+2	-		thick MSL	FD	2	b 2.5, 1/10, 3/10, 5/10	RD		
369	Vembuli	20	P	30.11.06	R	7.5	40+5	-		c		1	b 2.8, 8/10, 9/10			
370	Kalyani	19	P	31.12.06	R	8	41+2	-		Thin MSL		1	g 2.75, 7/10, 9/10			
371	Shahisa	23	M	21.03.06	R	9.2	41+5	-		c		1	g 2.5, 5/10, 7/10	RD		
372	Selvi	32	M	17.03.06	R	9	41W	-		c		1	g 2.6 7/10, 8/10			
373	Anjali	30	M	15.03.06	R	8.3	40+5	-		Thin MSL		1	g 2.4 8/10, 9/10			
374	Sangeetha	20	M	08.03.06	R	9.5	41+2	-		c		1	g 2.6 7/10, 8/10			
375	Meherunisha	27	M	06.03.06	-	-	41+2	-		thick/FK		1	b 3.3,5/10, 6/10	RD		
376	Shanthi	25	M	17.03.06	-	9.4	40+1	1	6 hrs	C		1	b 3, 7/10, 8/10			
377	Varalakshmi	26	P	18.12.06	-	-	40+4	-		Mod MSL	CPD/FD	2	g 3.75, 8/10, 9/10			
378	Punitha	29	P	17.03.06	-	9.3	41+3	2 dose 6 hrs	48 hrs	C	FI	2	g 3.15, 7/10, 8/10			
379	Chengammal	20	P	29.12.06	R	8.9	41+4	-		C	CPD	2	g 3, 7/10, 9/10			
380	Meniyur	26	M	17.01.06	R	11	41+5	1	22	Mod MSL	FD	2	g 3 6/10, 18/10			
381	Nadiammal	20	M	22.12.06	NR	8	42+5	-		thick MSL	CPD/FD	2	g 2.65,6/10, 9/10			
382	Dhanalakshmi	27	M	13.01.06	R	9	40+2	1	12	C		1	g 3.25, 8/10, 9/10			
383	Shanthi	22	M	12.01.06	R	9.3	40+4	-		Mod MSL		1	b 3.3, 5/10, 6/10	RD	6th PND	
384	Mahrswari	23	M	05.01.06	R	9.7	41+4	-		c		1	b 3, 8/10, 9/10			
385	Ilamathi	26	M	24.01.06	R	10	40+5	-		c		1	b 3.2, 8/10, 9/10			
386	Shanthi	38	M	01.03.06	R	9.9	41+1	-		thin		1	b 3.1, 7/10, 8/10			
387	Sunganthi	19	M	23.03.06	R	12	41+2	-		Thin MSL		1	b 2.7, 8/10, 9/10			

388	Kuppammal	21	P	15.12.06	R	7	41	1	8.30 hrs	mod. Msl	FD	2	b 2.6, 6/10	RD	3rd PND	
389	Lakshmi	22	P	01.12.06	NR	8	41+1	-		c	FAS	2	g 2.7, 7/10, 9/10			
390	Tamilselvi	19	P	28.11.06	R	7.9	41+2	1	9 hrs	c		1	g 2.75, 6/10, 8/10			
391	Chellamani	25	P	5.12.06	-	-	40+5	-		c		1	g,2.25,7/10,8/10			
392	Banu	24	P	11.12.06	R	9.5	41+5	1	9hrs	c		1	g,2.5,8/10,7/10			
393	Usharani	20	P	20.12.06	R	12	40+6	-		c		1	b,3.8,7/10,9/10			
394	Sumithra devi	19	P	1.12.06	R	10	41+1	-		c		1	b,3.25,6/10,8/10			
395	Prema	20	M	9.9.06	NR	8	40+3	-		thick MSL	FD	2	g,2.5,7/10,8/10	RD	4th PND	
396	Bharathi	25	M	31.10.06	-	12	41W	-		Thin MSL	FD/CPD	2	b,3.75,7/10,8/10			
397	Aadhilakshmi	21	P	6.11.06	R	11	40+5	-		c	CPD	2	b,2.75,6/10,9/10			
398	Kalaivani	21	P	4.11.06	R	9.2	40+4	-		c	FD	2	g,2.5,6/10,7/10			
399	Latha Kumar	23	P	24.10.06	R	6	41+6	1	12hrs	c		1	b,1.8,6/10,7/10	RD	5th PND	
400	Devika	24	M	23.10.06	R	9.2	41+1	-		c		1	b,4,8/10,9/10	LGA	2nd PND	
401	Jansirani	23	M	25.10.06	R	10	40+1	-		Thin MSL		1	b,3,7/10,8/10	RD/ IPasphyxia	6th PND	
402	Geetha	23	M	27.2.06	R	10	41+2	1	16hrs	c		1	b,2.8,7/10,8/10			
403	Shanthi	22	M	27.2.07	R	10	41+5	-		c		1	g,2.5,8/10,9/10			
404	Sumathy	23	M	3.3.06	R	9	41W	-		c		1	b,3,8/10,9/10			
405	Preetha	24	M	11.3.06	R	13.3	40+4	-		c		1	b,2.5,7/10,8/10			
406	Lakshmi	21	M	10.3.06	R		40+3	-		c		1	g,2.5,3/10,5/10,6/10	PN Hypoxie	7th PND	
407	Thuraisaniamal	26	M	2.11.06	R	12	41W	-		c		1	g,3.25,6/10,8/10			
408	Bagyalakshmi	20	M	9.11.06	R	10	40+5	-		c		1	g,2.8,7/10,9/10			
409	Logeswari	21	M	12.11.06	R	5.5	41+6	-		c		1	b,2.6,7/10,8/10			
410	Priya	29	M	14.10.06	R	9.7	41W	1	12hrs	c		1	g,3.5,7/10,8/10			
411	Jamusbegum	24	M	12.10.06	-	6	41+1	-		mod.Msl	FD	2	g,3.25,6/10,8/10	RD,	4th PND	
412	Selvi	21	M	23.10.06	R	7	40+3	-		mod.Msl	FD	2	b,4,6/10,8/10	LGA/TTN	5th PND	
413	Lakshmi	27	M	12.5.06	-	-	41W	1		thick MSL		1	3.2,2/10,5/10	PN Hypoxia/RD	6th PND	
414	Lakshmi	21	M	1.5.06	R	9	41W	1		c		1	g,2.4,7/10,8/10			
415	Lakshmi Arasan	22	M	15.5.06	R	9	41W	-		c		1	b,2.75,7/10,9/10			
416	Kalaiselvi	25	M	19.5.06	R	11.1	40+5	-		c		1	b,3.6,8/10,9/10			
417	Sarswathi	23	M	17.5.06	-		41W	-		c		1	b,2.5,7/10,9/10			

418	Regina	30	M	10.5.06	-		41+6	-		c		1	g,2.85,7/10,9/10			
419	Nivatha	21	M	24.10.06	R	9	41+1	2,12	28hrs	c		1	b,3.75,7/10,8/10			
420	Sundari	22	P	20.10.06	R	8.7	41+5	1	20hrs	c		1	b,3,7/10,8/10			
421	Sri Devikala	22	P	23.10.06	NR	4.5	41+2	-		mod.Msl	FD	2	g,2.6,7/10,8/10	RD		
422	Sudha	23	M	13.5.06	R	<6	41+3	1	17hrs	c		1	g,2.3,7/10,8/10			
423	Dhanalakshmi	20	M	20.4.06	R	9.3	40+4	2,12		c	FI	2	g,2.85,7/10,8/10			
424	Bavani	21	M	29.4.06	R	10.9	40+4	-		c		1	b,3,7/10,8/10			
425	Sudha	33	M	17.4.06	R	9.3	40+5	-		c		1	b,3.2,7/10,8/10	RD		
426	Varalaxmi	23	M	30.4.06	R	10	40+6	1	7:10 hrs	c		1	g,2.5,7/10,9/10			
427	Geetha	25	M	30.4.06	-	11	41+3	1	15 hrs	c		1	b,2.5,7/10,9/10			
428	Chitra	23	M	23.4.06	R	11	40+6	-		c	FD	2	b,3.7,7/10,8/10			
429	Krishnaveni	24	M	26.4.06	R	-	40+4	1	12 hrs	c		1	g,2.75,8/10,9/10			
430	Malleswari	27	M	21.4.06	-	-	41+2	-		c		1	b,3.25,9/10,8/10			
431	Sasikala	22	M	24.4.06	-	-	41W	1		c		1	g,2.75,7/10,8/10			
432	Poornima	22	M	14.4.06	R	9.2	40+2	1	12 hrs	Thin MSL	FD	2	g,3.3,5/10,6/10	MAS	3rd PND	
433	Selvi	31	M	27.8.06	R	8.3	41+5	-		Thin MSL	FD	2	g,2.9,6/10,8/10			
434	Granamani	27	M	28.4.06	R	11	41W	1		c		1	g,2.9,7/10,9/10			
435	Bhuvaneswari	28	M	17.4.06	R	12	41+1	-		c	FD	2	b,2.6,7/10,8/10			
436	Lakshmi	20	M	13.7.06	-	-	40+4	-		c		1	b,3,7/10,9/10			
437	Suhahisini	23	M	14.5.06	R	8.9	40+5	-		c		1	g,3.6,7/10,8/10			
438	Shakila	25	M	10.5.06	R	-	41+5	-		c		1	g,3,7/10,8/10			
439	Saraswathi	21	M	20.5.06	-	-	40+3	-		c		1	g,2.7,8/10,9/10			
440	Vasanthi	26	M	16.5.06	R	8	40+5	-		c		1	g,2.5,8/10,9/10			
441	Vanjammal	25	M	6.5.06	R	9	42W	-		c		1	g,2.75,7/10,8/10	RD	5th PND	
442	Patchiammal	30	M	12.11.06	R	8.7	41W	-		C		1	g3, 7/10, 9/10			
443	Rehana fathima	25	P	10.11.06	R	9.1	41W	1	9HRS	C	FA	2	g 3.25, 7/10, 9/10			
444	Nirmala	22	P	15.11.06	R	6.9	40+6	-		C		1	g 3.25, 7/10, 8/10			
445	Mala	29	M	27.09.06	R	9	41W	-		C		1	b 3.25, 8/10, 9/10			
446	Kantha	27	M	26.09.06	R	10	41W	-		C		1	g 2.75, 7/10, 9/10			
447	Rajeswari	27	M	27.09.06	R	10.3	40+2	1	72 HRS	Thin MSL	FD	2	b 3.5, 7/10, 8/10			

448	Sarala	24	M	22.01.06	-	-	40+6	-		C		1	b 2.5, 7/10, 9/10			
449	Selvi	23	M	27.10.06	-	-	41W	-		C		1	b 2.5, 7/10, 8/10			
450	Jeyalakshmi	22	M	26.10.06	-	-	41+1	-		Thin MSL		1	b 2.6, 8/10, 9/10			
451	Vijaya	26	M	25.10.06	-	-	40+2	1	9.2	C		1	g 3.25, 7/10, 8/10			
452	Latha	28	M	12.11.06	R	9	40+2	-		C		1	b 3, 7/10, 8/10			
453	Sarala Mary	26	M	10.11.06	R	10	40+5	-		C		1	b 3.1, 7/10, 9/10			
454	Vijayalakshmi	28	M	30.10.06	R	9	42+1	-		C		1	b 3, 7/10, 8/10			
455	Sudha	22	M	14.11.06	R	7.8	40+1	-		C		1	b, 2.4, 7/10, 8/10			
456	Jeyanthi	27	M	08.11.06	R	9.7	40+4	-		C		1	g 2.7, 7/10, 9./10			
457	Geetha	21	M	01.11.06	R	7	41+1	-		thick	FD	2	g 3.25, 7/10, 8/10			
458	Jayanthi	31	M	31.10.06	R	8	41+2	-		C	FA	2	g 3, 7/10, 9/10			
459	Jeyashree	25	M	09.11.06	R-NR	9	40+2	1 dose	24Hrs	C	FI	2	b 3, 7/10, 8/10			
460	Gomathi	25	M	29.09.06	R	9	40+3	-		C		1	b 2.5, 7/10, 9/10			
461	Sangeetha	25	M	12.11.06	-	10	41+6	-		C		1	b 2.65, 8/10, 9/10			
462	Komala	23	M	08.01.06	R	9.5	41+2	2dose6hr	20 hrs	thick	FI	2	b 3.5, 8/10, 9/10			
463	Janani	24	P	28.02.06	R	9	40+3	2dose12hr	21 hrs	thick MSL	FD	2	b 3.5, 6/10, 9/10			
464	Vennila	27	M	05.01.06	R-NR	9	40+2	1	17 hrs	C	FAS	2	b 3.2, 8/10, 9/10			
465	Mahajabeen	22	M	09.03.06	R	9	41+3	-		thick MSL		1	b 3.3, 4/10, 6/10	RD		
466	Uma Mahrswari	22	P	25.11.06	R	10.3	42+2	-		Thin MSL		1	g, 2.75, 7/10, 9/10			
467	Shanthi	30	M	01.03.06	R	9.9	40+3	-		C		1	b 3.1, 7/10, 8/10			
468	Sujatha	27	P	26.03.06	R	11	41+1	-		thick MSL	FD	2	b 3.25, 5/10, 7/10	Perinatal hypoxia	7th PND	
469	Dhanalakshmi	24	M	13.01.06	R	8.9	41+2	1	13 hrs	C		1	g 3.25, 8/10, 9/10			
470	Chandru	30	P	27.02.06	R	13	41+3	-		C		1	g 2.25, 7/10, 8/10			
471	Manimala	22	P	28.04.06	R	11	40+6	1	13 HRS	c	CPD	2	b 3, 7/10, 8/10			
472	Saritha	22	M	13.05.06	-	5	41+3	1	17 hrs	C		1	g 2.3, 7/10, 8/10			
473	Sindhu	21	P	27.04.06	R	9.5	40+6	-	16 hrs	C		1	b 2.8, 7/10, 8/10			
474	Sujatha	20	M	31.08.06	R	8.7	41+6	-		Thin MSL	FD	2	g, 2.9, 6/10, 8/10			
475	Mubarak	20	P	14.05.06	R	9.3	40+5	-		C		1	g, 3.25, 7/10, 9/10			
476	Kalaivani	26	P	12.05.06	R	8	40+3	2. 12 hrs	19	C		1	b 2,5, 7/10, 8/10			
477	Banumathy	22	M	24.04.06	R	9.2	40+1	-		C		1	g, 2.9, 7/10, 8/10			

478	Fathima Banu	20	P	12.06.06	R	8.9	41+1	-		thick MSL	FD/CPD	2	b 3,2, 7/10, 8/10	RD	6th PND	
479	Vasanthi	26	P	03.11.06	R	9.2	41W	-		C		1	g 3.25, 7/10, 8/10			
480	Kamala	20	P	10.11.06	R	10	41W	-		C	CPD/FA	2	g 3.25, 7/10, 9/10			
481	Balakumari	18	P	12.11.06	R	9.1	40+4	-		C		1	g 2.6, 7/10, 9/10			
482	Radhika	25	P	09.11.06	R	10.2	40+1	1	23 hrs	C	FA	2	b 3.25, 7/10, 8/10			
483	Jameshathbeevi	21	P	17.11.06	R	6	40+3	-		C		1	g 2.5, 6/10, 7/10			
484	Pushpavalli	25	P	18.11.06	R	9.3	41W	1	25hrs	Thin MSL	FD	2	g, 2.7, 6/10, 7/10			
485	Shobana	25	M	22.11.06	R	8.7	41+1	1	8 hrs	Thin MSL	FD	2	g 3, 7/10, 8/10			
486	Rani	22	M	19.11.06	R	11	41W	1	7 hrs	C		2	g 3, 8/10, 9/10			
487	Nithya	21	P	05.03.06	R-NR	10	40+6	1	18 hrs	C	FAS	2	g 3.1, 7/10, 8/10			
488	Leelavathy	23	P	15.11.06	R	8	41W	-		thick MSL	FD	2	g, 2.8, 6/10, 7/10			
489	Srikala	25	M	05.09.06	NR	5	41W	-		C ed	FAS	2	g3, 6/10, 7/10	RD	3rd PND	
490	Lakshmi	21	P	25.10.06	NR	8	41+2	-		C ed	FAS	2	g 2.7, 7/10, 8/10			
491	Kamala	20	M	25.11.06	-	-	41+2	-		Thin MSL		1	g 2.25, 7/10, 8/10			
492	Vishu Priya	24	M	14.11.06	R	8.7	40+6	-		Thin MSL		1	g 2.8, 5/10, 6/10	RD /? MAS	5th PND	
493	Suryakala	24	P	15.11.06	R	9.3	41+2	-		C		1	b 2.5, 8/10, 9/10			
494	Chitra	21	M	15.12.06	R	10	40+6	-		C		1	g 3.2, 7/10, 9/10			
495	Anuradha	19	P	10.12.06	R	9.5	41+3	-		C		1	g 2.75, 7/10, 9/10			
496	Poornapushp	21	M	05.09.06	R	9.1	41+3	1	7.10 min	C		1	b 2.5, 7/10, 9/10			
497	Amudha	29	P	02.09.06	R	9.2	41W	1	11 hrs	C		1	g 2.3, 7/10, 8/10			
498	Santhi	20	M	11.09.06	NR	8.2	40+6	-		thick MSL	CPD/FD	2	g 3, 6/10, 9/10			
499	Arulmani	30	M	14.03.06	R	8.3	40+3	-		C		1	g 2.5, 8/10, 9/10			
500	Nasreenbanu	20	P	22.03.06	R	8	41W	2.6 hrs	12	C		1	g 3.25, 7/10, 8/10			

KEY TO MASTER CHART

1.	P	-	Primigravida
2.	M	-	Multigravida
3.	R	-	Reactive NST
4.	NR	-	Non reactive NST
5.	AFI	-	Amniotic Fluid Index
6.	MSL	-	Meconium Stained Liquor
7.	IDI	-	Induction Delivery Interval
8.	CPD	-	Cephalo pelvic disproportion
9.	FD	-	Fetal Distress
10.	FA	-	Failed Acceleration
11.	FI	-	Failed Induction
12.	FAS	-	Fetal alarm Signal
13.	MP	-	Mento posterior
14.	POP	-	Persistent Occipitoposterior Position
15.	Oligo	-	Oligohydramnios
16.	Colour of Liquor		
	C	-	Clear liquor
17.	GA	-	Gestational Age
18.	MAS	-	Meconium Aspiration Syndrome
19.	AGA	-	Appropriate for Gestational Age
20.	TTN	-	Transient Tachypnoea of New Born
21.	IUGR	-	Intra Uterine Growth Restriction
22.	LGA	-	Large for Gestational Age
23.	PND	-	Postnatal Day
24.	Mode of Delivery		
	1	-	Labour Natural
	2	-	LSCS
	3	-	Outlet Forceps delivery
	4	-	Low Midcavity forceps delivery